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#RC0191

North American Listings
including Hawaii & U.S. possessions

1991 radio amateur callbook

The only publication listing licensed radio amateurs throughout the world, since 1920.

in this issue

- 537,224 licensed Radio Amateurs
- 28,667 new licenses included, issued since the 1990 edition
- 68,221 changes in listings
- Then & Now - Call letter changes
- 6 and 10 Meter Beacon Lists
- Radio Amateur Prefixes of the World
- Table of Call Sign Allocations
- DXCC Countries List
- Standard Time Chart
- Census of Amateur Radio Licenses of the World
- Census of Amateur Radio Licenses of the U.S.
- International Postal Information
- World Wide QSL Bureaus
- USSR Oblast List
- Plus many other features

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69th Anniversary Edition

For Use Throughout 1991

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The DXpeditioner!

TS-440S

Compact high performance HF transceiver with general coverage receiver

Portable reliable performance and ease of use makes the TS-440S your obvious "low bands" choice. It is "Every Ham's" rig to go – ham shack, portable or mobile. But don't let the small size fool you – there's lots of "big rig" performance packed into this package. Built-in antenna tuner option. Continuous duty transmitter. Super DynaMix™ front end. Five filter functions. The TS-440S is at your service wherever you wish to operate.

- **Covers all Amateur bands**
  General coverage receiver tunes from 100 kHz–30 MHz. Easily modified for HF MARS operation.
- **Direct keyboard entry of frequency**
- **All modes built-in**
  USB, LSB, CW, AM, FM, and AFSK. Mode selection is verified in Morse Code.
- **VS-1 voice synthesizer (optional)**
- **Built-in automatic antenna tuner (optional).** Covers 80–10 meters.
- **5 IF filter functions**
- **Superior receiver dynamic range**
  Kenwood DynaMix™ high sensitivity direct mixing system ensures true 102 dB receiver dynamic range. (500 Hz bandwidth on 20 m.)
- **100% duty cycle transmitter**
  Super efficient cooling permits continuous key-down for periods exceeding one hour. RF input power is rated at 200 W PEP on SSB. 200 W DC on CW, AFSK, FM, and 110 W DC AM. (The PS-50 power supply is needed for continuous duty.)
- **Computer interface port**
- **Adjustable dial torque**
- **100 memory channels**
  Frequency and mode may be stored in 10 groups of 10 channels each. Split frequencies may be stored in 10 channels for repeater operation.
- **TU-8 CTCSS unit (optional)**

- **MC-43S UP/DOWN mic. included**
- **Superb interference reduction**
  IF shift, tuneable notch filter, noise blanker, all-mode squelch, RF attenuator, RIT/XIT, and opt. filters fight QRM.
- **Dual SSB IF filtering**
  A built-in SSB filter is standard. When an optional SSB filter (YK-88S or YK-88SN) is installed, **dual** filtering is provided.
- **VOX, full or semi break-in CW**
- **AMTOR compatible**

Optional accessories:

• **AT-440** internal auto. antenna tuner (80 m – 10 m) • **AT-250** external auto. tuner (160 m – 10 m) • **AT-130** compact mobile antenna tuner (160 m – 10 m) • **IF-232C/IC-10** level translator and modem IC kit • **PS-50** heavy duty power supply • **PS-430** DC power supply • **SP-430** external speaker • **MB-430** mobile mounting bracket • **YK-88C/88CN** 500 HZ/270 Hz CW filters • **YK-88S-88SN** 2.4 kHz/1.8 kHz SSB filters • **MC-60A/80/85** desk microphones • **MC-55** (8P) mobile microphone • **HS-4/5/6/7** headphones • **SP-41/50B** mobile speakers • **MA-5/VP-1 HF** 5 band mobile helical antenna and bumper mount • **TL-922A** 2 kw PEP linear amplifier • **SM-220** station monitor (no pan display) • **VS-1** voice synthesizer • **TU-8** CTCSS tone unit • **PG-2C** extra DC cable.

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RADIO AMATEURS of NORTH AMERICA

VOLUME 69
NUMBER 1

Including Hawaii and
the U.S. Possessions

WINTER 1990-91

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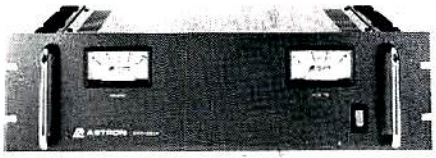
SL SERIES

MODEL	Colors Gray	Colors Black	Continuous Duty (Amps)	ICS* (Amps)	Size (IN) H × W × D	Shipping Wt. (lbs.)
• LOW PROFILE POWER SUPPLY						
SL-11A	•	•	7	11	2¾ x 7⅝ x 9¾	11

RS-L SERIES

MODEL	Continuous Duty (Amps)	ICS* (Amps)	Size (IN) H × W × D	Shipping Wt. (lbs.)
• POWER SUPPLIES WITH BUILT IN CIGARETTE LIGHTER RECEPTACLE				
RS-4L	3	4	3½ x 6⅛ x 7¼	6
RS-5L	4	5	3½ x 6⅛ x 7¼	7



RM SERIES

MODEL RM-35M

• 19" RACK MOUNT POWER SUPPLIES

MODEL	Continuous Duty (Amps)	ICS* (Amps)	Size (IN) H × W × D	Shipping Wt. (lbs.)
RM-12A	9	12	5¼ × 19 × 8¼	16
RM-35A	25	35	5¼ × 19 × 12½	38
RM-50A	37	50	5¼ × 19 × 12½	50
RM-60A	50	55	7 × 19 × 12½	60
• Separate Volt and Amp Meters				
RM-12M	9	12	5¼ × 19 × 8¼	16
RM-35M	25	35	5¼ × 19 × 12½	38
RM-50M	37	50	5¼ × 19 × 12½	50
RM-60M	50	55	7 × 19 × 12½	60

RS-A SERIES

MODEL RS-7A

MODEL	Colors Gray	Colors Black	Continuous Duty (Amps)	ICS* (Amps)	Size (IN) H × W × D	Shipping Wt. (lbs.)
RS-3A		•	2.5	3	3 × 4¾ × 5¾	4
RS-4A	•	•	3	4	3¾ × 6½ × 9	5
RS-5A		•	4	5	3½ × 6⅛ × 7¼	7
RS-7A	•	•	5	7	3¾ × 6½ × 9	9
RS-7B	•	•	5	7	4 × 7½ × 10¾	10
RS-10A	•	•	7.5	10	4 × 7½ × 10¾	11
RS-12A	•	•	9	12	4½ × 8 × 9	13
RS-12B		•	9	12	4 × 7½ × 10¾	13
RS-20A	•	•	16	20	5 × 9 × 10½	18
RS-35A	•	•	25	35	5 × 11 × 11	27
RS-50A	•		37	50	6 × 13¾ × 11	46

RS-M SERIES

MODEL RS-35M

MODEL	Continuous Duty (Amps)	ICS* (Amps)	Size (IN) H × W × D	Shipping Wt. (lbs.)
• Switchable volt and Amp meter				
RS-12M	9	12	4½ × 8 × 9	13
• Separate volt and Amp meters				
RS-20M	16	20	5 × 9 × 10½	18
RS-35M	25	35	5 × 11 × 11	27
RS-50M	37	50	6 × 13¾ × 11	46

VS-M AND VRM-M SERIES

MODEL VS-35M

• Separate Volt and Amp Meters • Output Voltage adjustable from 2-15 volts • Current limit adjustable from 1.5 amps to Full Load

MODEL	Continuous Duty (Amps) @13.8VDC	@10VDC	@5VDC	ICS* (Amps) @13.8V	Size (IN) H × W × D	Shipping Wt. (lbs.)
VS-12M	9	5	2	12	4½ × 8 × 9	13
VS-20M	16	9	4	20	5 × 9 × 10½	20
VS-35M	25	15	7	35	5 × 11 × 11	29
VS-50M	37	22	10	50	6 × 13¾ × 11	46
• Variable rack mount power supplies						
VRM-35M	25	15	7	35	5¼ × 19 × 12½	38
VRM-50M	37	22	10	50	5¼ × 19 × 12½	50

RS-S SERIES

MODEL RS-12S

• Built in speaker

MODEL	Colors Gray	Colors Black	Continuous Duty (Amps)	ICS* Amps	Size (IN) H × W × D	Shipping Wt. (lbs.)
RS-7S	•	•	5	7	4 × 7½ × 10¾	10
RS-10S	•	•	7.5	10	4 × 7½ × 10¾	12
RS-12S	•	•	9	12	4½ × 8 × 9	13
RS-20S	•	•	16	20	5 × 9 × 10½	18

*ICS—Intermittent Communication Service (50% Duty Cycle 5min. on 5 min. off)

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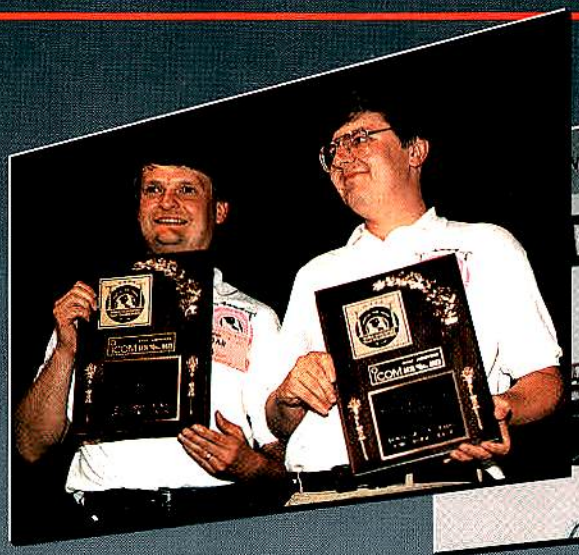

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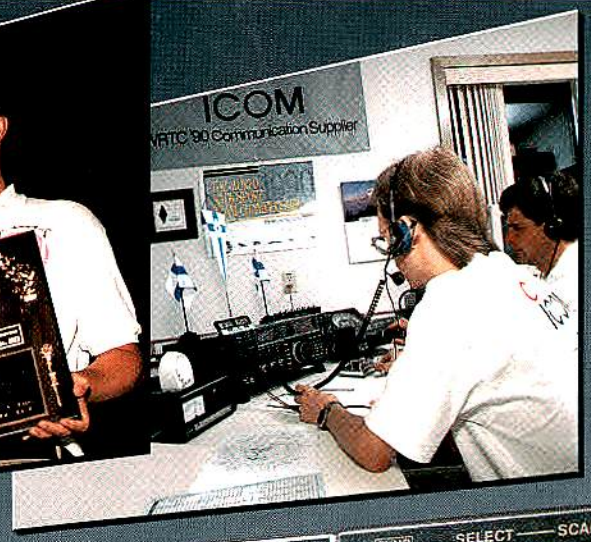

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HF TRANSCEIVER

Selected as the official radio of the World Radiosport Team Championships, a cultural exchange event of the 1990 Goodwill Games™, the IC-765 exemplifies ICOM's commitment to excellence in performance. The IC-765 incorporates the finest technology with the best designs to produce unbeatable HF operation for competitors worldwide.

The IC-765 sports: **Band Stacking Registers**. Each band's VFO's retain the last selected frequency, mode and filter choice when changing bands. Produces the equivalent of 20 VFO's; two per band. Great for multiband DX'ing! **99 Fully Tunable Memories.** Store frequency, mode and filter selections. **Direct Digital Synthesizer (DDS).** Assures ultra-fast PLL switching and lock-in for excellent PACKET, AMTOR and CW QSK operations.

Unlimited Operating Capability! The three step attenuator cuts multi-station overloads. Additional features include a **Built-in AC Supply, 100 percent duty cycle** for consistent high quality operation, **Fully Automatic Antenna Tuner, Iambic Keyer, Narrow 500Hz CW Filters** and **CW Pitch Control.**

The IC-765 general coverage receiver covers all bands and all modes.

Backed by ICOM's full **one-year warranty**, the IC-765's world class performance and superb reliability make it . . . the Choice of Champions!

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AAA-ALZ	United States of America
AMA-AOZ	Spain
APA-ASZ	Pakistan
ATA-AWZ	India
AXA-AXZ	Australia
AYA-AZZ	Argentina
BAA-BZZ	China
CAA-CEZ	Chile
CFA-CKZ	Canada
CLA-CMZ	Cuba
CNA-CNZ	Morocco
COA-COZ	Cuba
CPA-CPZ	Bolivia
CQA-CUZ	Portugal
CVA-CXZ	Uruguay
CYA-CZZ	Canada
DAA-DRZ	Fed. Rep. of Germany (West)
DSA-DTZ	South Korea
DUA-DZZ	Philippines
EAA-EHZ	Spain
EIA-EJZ	Ireland
EKA-EKZ	Union of Soviet Socialist Rep.
ELA-ELZ	Liberia
EMA-EOZ	Union of Soviet Socialist Rep.
EPA-EQZ	Iran
ERA-ESZ	Union of Soviet Socialist Rep.
ETA-ETZ	Ethiopia
EUA-EWZ	Byelorussian SSR
EXA-EZZ	Union of Soviet Socialist Rep.
FAA-FZZ	France
GAA-GZZ	Great Britain & No. Ireland
HAA-HAZ	Hungary
HBA-HBZ	Switzerland
HCA-HDZ	Ecuador
HEA-HEZ	Switzerland
HFA-HFZ	Poland
HGA-HGZ	Hungary
HHA-HHZ	Haiti
HIA-HIZ	Dominican Republic
HJA-HKZ	Colombia
HLA-HLZ	Rep. of Korea (South)
HMA-HMZ	Dem. People's Rep. of Korea (North)
HNA-HNZ	Iraq
HOA-HPZ	Panama
HQA-HRZ	Honduras
HSA-HSZ	Thailand
HTA-HTZ	Nicaragua
HUA-HUZ	El Salvador
HVA-HVZ	Vatican City State
HWA-HYZ	France
HZA-HZZ	Saudi Arabia
IAA-IZZ	Italy
JAA-JSZ	Japan
JTA-JVZ	Mongolia
JWA-JXZ	Norway
JYA-JYZ	Jordan
JZA-JZZ	Indonesia
KAA-KZZ	United States of America
LAA-LNZ	Norway
LOA-LWZ	Argentina
LXA-LXZ	Luxembourg
LYA-LYZ	Union of Soviet Socialist Rep.
LZA-LZZ	Bulgaria
MAA-MZZ	Great Britain & No. Ireland
NAA-NZZ	United States of America
OAA-OCZ	Peru
ODA-ODZ	Lebanon
OEA-OEZ	Austria
OFA-OJZ	Finland
OKA-OMZ	Czechoslovakia
ONA-OTZ	Belgium
OUA-OZZ	Denmark
PAA-PIZ	Netherlands
PJA-PJZ	Netherlands Antilles
PKA-POZ	Indonesia
PPA-PYZ	Brazil
PZA-PZZ	Surinam
QAA-QZZ	Q Signals
RAA-RZZ	Union of Soviet Socialist Rep.
SAA-SMZ	Sweden
SNA-SRZ	Poland
SSA-SSM	Egypt
SSN-STZ	Sudan
SUA-SUZ	Egypt
SVA-SZZ	Greece
TAA-TCZ	Turkey
TDA-TDZ	Guatemala
TEA-TEZ	Costa Rica
TFA-TFZ	Iceland
TGA-TGZ	Guatemala
THA-THZ	France
TIA-TIZ	Costa Rica
TJA-TJZ	Cameroon
TKA-TKZ	France
TLA-TLZ	Central African Republic
TMA-TMZ	France
TNA-TNZ	Congo
TOA-TQZ	France
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TTA-TTZ	Chad
TUA-TUZ	Ivory Coast
TVA-TXZ	France
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TZA-TZZ	Mali
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URA-UTZ	Ukrainian Soviet Socialist Rep.
UUA-UZZ	Union of Soviet Socialist Rep.
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VHA-VNZ	Australia
VOA-VOZ	Canada
VPA-VSZ	Great Britain & No. Ireland
VTA-VWZ	India
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XSA-XSZ	China
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XUA-XUZ	Cambodia
XVA-XVZ	Vietnam
XWA-XWZ	Laos
XXA-XXZ	Portugal
XYA-XZZ	Myanmar
YAA-YAZ	Afghanistan
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YIA-YIZ	Iraq
YJA-YJZ	Vanuatu
YKA-YKZ	Syria
YLA-YLZ	Union of Soviet Socialist Rep.
YMA-YMZ	Turkey
YNA-YNZ	Nicaragua
YOA-YRZ	Romania
YSA-YSZ	El Salvador
YTA-YUZ	Yugoslavia
YVA-YYZ	Venezuela
YZA-YZZ	Yugoslavia
ZAA-ZAZ	Albania
ZBA-ZJZ	Great Britain & No. Ireland
ZKA-ZMZ	New Zealand
ZNA-ZOZ	Great Britain & No. Ireland
ZPA-ZPZ	Paraguay
ZQA-ZQZ	Great Britain & No. Ireland
ZRA-ZUZ	South Africa-Namibia
ZVA-ZZZ	Brazil
2AA-2ZZ	Great Britain & No. Ireland
3AA-3AZ	Monaco
3BA-3BZ	Mauritius
3CA-3CZ	Equatorial Guinea
3DA-3DM	Swaziland
3DN-3DZ	Fiji
3EA-3FZ	Panama
3GA-3GZ	Chile
3HA-3UZ	China
3VA-3VZ	Tunisia
3WA-3WZ	Vietnam
3XA-3XZ	Guinea
3YA-3YZ	Norway
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4AA-4CZ	Mexico
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5AA-5AZ	Libya
5BA-5BZ	Cyprus
5CA-5GZ	Morocco
5HA-5IZ	Tanzania
5JA-5KZ	Colombia
5LA-5MZ	Liberia
5NA-5OZ	Nigeria
5PA-5QZ	Denmark
5RA-5SZ	Madagascar
5TA-5TZ	Mauritania
5UA-5UZ	Niger
5VA-5VZ	Togo
5WA-5WZ	Western Samoa
5XA-5XZ	Uganda
5YA-5ZZ	Kenya
6AA-6BZ	Egypt
6CA-6CZ	Syria
6DA-6JZ	Mexico
6KA-6NZ	Rep. of Korea (South)
6OA-6OZ	Somalia
6PA-6SZ	Pakistan
6TA-6UZ	Sudan
6VA-6WZ	Senegal
6XA-6XZ	Madagascar
6YA-6YZ	Jamaica
6ZA-6ZZ	Liberia
7AA-7IZ	Indonesia
7JA-7NZ	Japan
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7QA-7QZ	Malawi
7RA-7RZ	Algeria
7SA-7SZ	Sweden
7TA-7YZ	Algeria
7ZA-7ZZ	Saudi Arabia
8AA-8IZ	Indonesia
8JA-8NZ	Japan
8OA-8OZ	Botswana
8PA-8PZ	Barbados
8QA-8QZ	Maldive Is
8RA-8RZ	Guyana
8SA-8SZ	Sweden
8TA-8YZ	India
8ZA-8ZZ	Saudi Arabia
9BA-9DZ	Iran
9EA-9FZ	Ethiopia
9GA-9GZ	Ghana
9HA-9HZ	Malta
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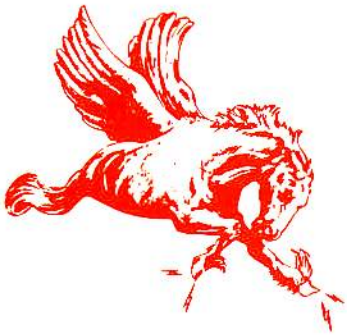
S6A-S6Z	Singapore
S7A-S7Z	Seychelles
S9A-S9Z	Sao Tome & Principe
T2A-T2Z	Tuvalu
T3A-T3Z	Kiribati
T4A-T4Z	Cuba
T5A-T5Z	Somalia
T6A-T6Z	Afghanistan
T7A-T7Z	San Marino
V2A-V2Z	Antigua
V3A-V3Z	Belize
V4A-V4Z	St. Kitts and Nevis
V5A-V5Z	Namibia
V6A-V6Z	Fed. States of Micronesia
V7A-V7Z	Marshall Is.
V8A-V8Z	Brunei
Y2A-Y9Z	German Dem. Republic (East)
Z2A-Z2Z	Zimbabwe



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1991

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INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in identifying the country when DX calls are heard.

AA-AL		United States of America
AP		Pakistan
A2		Botswana
A3		Tonga
A4		Oman
A5		Bhutan
A6		United Arab Emirates
A7		Qatar
A9		Bahrain
B		China
BV		Taiwan
CE		Chile
	CE9AA-AM	Chilean Antarctica: Tierra de O'Higgins, Palmer Peninsula, Graham Land
	CE9AN-AZ	South Shetland Is
	CE0A	Easter Is
	CE0X	San Felix Is
	CE0Z	Juan Fernandez Is
CM,CO		Cuba
CN		Morocco
CP		Bolivia
CT		Portugal
	CT3	Madeira Is
	CU	Azores Is
CX		Uruguay
C2		Nauru
C3		Andorra
C5		The Gambia
C6		Bahamas
CE CO		Mozambique
DA DP		Fed. Rep. of Germany (West)
DU DW		Philippines
D2,D3		Angola
D4		Cape Verde
D6		Comoros
EA-EH		Spain
	EA6	Balearic Is
	EA8	Canary Is
	EA9	Ceuta & Melilla
EI		Ireland
EJØ		Aran Is
EL		Liberia
EP		Iran
ES		Estonia
ET		Ethiopia
F		France
	FG	Guadeloupe
	FH	Mayotte
	FJ	St. Barthelemy
	FK	New Caledonia
	FM	Martinique
	FO	French Polynesia: Clipperton Is
	FP	St. Pierre & Miquelon Is
	FR	Glorioso, Juan de Nova, Reunion, Tromelin Is
	FS	St. Martin Is
	FT8W	Crozet Is
	FT8X	Kerguelen Is
	FT8Y	French Antarctica
	FT8Z	Amsterdam & St. Paul Is
	FW	Wallis & Futuna Is
	FY	French Guiana
G		England
	GD	Isle of Man
	GI	Northern Ireland
	GJ	Jersey
	GM	Scotland
	GU	Bailiwick of Guernsey
	GW	Wales
HA		Hungary
HB		Switzerland
HBØ		Liechtenstein
HC		Ecuador
	HC8	Galapagos Is
HG		Hungary
HH		Haiti
HI		Dominican Republic
HK		Colombia
	HKØ	Bajo Nuevo, Malpelo, San Andres & Providencia Is
HLHM		Korea
HP		Panama
HR		Honduras
	HRØ	Swan Is
HS		Thailand
HV		Vatican City
HZ		Saudi Arabia
H4		Solomon Is
H5		Bophuthatswana
I-IZ		Italy
	IA	Tuscan Archipelago
	IC	Capri & Ischia Is
	IG	Lampedusa Is
	IH	Pantelleria Is
	IM	Maddalena Is
	IS	Sardinia
	IT	Sicily
JA,JS		Japan
	JD1	Ogasawara Is., Minami Tori-Shima
	JR6	Okinawa (Ryukyu Is.)
JT		Mongolia
JW		Svalbard Is
JX		Jan Mayen Is
JY		Jordan
J2		Djibouti
J3		Grenada
J5		Guinea-Bissau
J6		St. Lucia
J7		Dominica
J8		St. Vincent and the Grenadines
K		United States of America
	KA	U.S. Personnel in Japan
	KC4	U.S. Antarctica
	KG4	Guantanamo Bay
	KH1	Baker & Howland Is
	KH2	Guam
	KH3	Johnston Is
	KH4	Midway Is
	KH5	Jarvis & Palmyra Is
	KH5K	Kingman Reef
	KH6	Hawaii
	KH7	Kure Is
	KH8	American Samoa
	KH9	Wake Is
	KH0	Mariana Is
	KL7	Alaska
	KP1	Navassa Is
	KP2	Virgin Is
	KP4	Puerto Rico
	KP5	Desecheo Is
LA-LJ		Norway
LU		Argentina
LU		Argentine Antarctica
LX		Luxembourg
LY		Lithuania
LZ		Bulgaria
N		United States of America
OA		Peru
OD		Lebanon
OE		Austria
OH		Finland
	OHØ	Aland Is
	OJØ	Market Reef
OK,OL		Czechoslovakia
ON		Belgium
OX		Greenland
OY		Faroe Is
OZ		Denmark
PA-PI		Netherlands
PJ		Netherlands Antilles
PP-PY		Brazil
	PYØ	Fernando de Noronha Is
	PYØ	St. Peter & St. Paul Rocks
	PYØ	Trindade & Martim Vaz Is
PZ		Surinam
P2		Papua New Guinea
P4		Aruba
R		Union of Soviet Socialist Rep.
SJ-SM		Sweden
SP		Poland
ST		Sudan
SU		Egypt
SV		Greece
	SV5	Dodecanese Is
	SV9	Crete
S2,S3		Bangladesh
S4		Ciskei
S7		Seychelles Is
S8		Transkei
S9		Sao Tome & Principe
SØ		Western Sahara
TA,TC		Turkey
TF		Iceland
TG		Guatemala
TI		Costa Rica
	TI9	Cocos Is
TJ		Cameroon
TK		Corsica (France)
TL		Central African Republic
TN		Congo
TR		Gabon
TT		Chad
TU		Ivory Coast
TY		Benin
TZ		Mali
T2		Tuvalu
T3		Kiribati
T5		Somalia
T7		San Marino
UA,UN,UV,UW,UZ		Russian S.F.S.R
UB,UT,UY		Ukrainian S.S.R
UC		Byelorussian S.S.R
UD		Azerbaijan S.S.R
UF		Georgian S.S.R
UG		Armenian S.S.R
UH		Turkmen S.S.R
UI		Uzbek S.S.R
UJ		Tadzhik S.S.R.
UL		Kazakh S.S.R.
UM		Kirghiz S.S.R.
UO		Moldavian S.S.R
UP		Lithuanian S.S.R
UQ		Latvian S.S.R
UR		Estonian S.S.R
VE		Canada
VK		Australia
	VK2	Lord Howe Is
	VK7	Tasmania
	VK9N	Norfolk Is
	VK9X	Christmas Is
	VK9Y	Cocos (Keeling) Is
	VK9Z	Willis Is
	VKØ	Heard Is., Australian Antarctica
VO1		Newfoundland (Canada)
VO2		Labrador (Canada)
VP2		Leeward & Windward Is
	VP2E	Anguilla
	VP2M	Montserrat
	VP2V	British Virgin Is
VP5		Turks & Caicos Is
VP8		Falkland, S. Georgia, S. Orkney, S. Sandwich, S Shetland Is., Graham Land
VP9		Bermuda Is
VQ9		Chagos
VR6		Pitcairn Is
VS6		Hong Kong
VU		India
	VU7	Andaman & Nicobar Is
	VU7	Laccadive Is
	YV1	Canadian Yukon Territory
	V2	Antigua, Barbuda
	V3	Belize
	V4	St. Kitts and Nevis
	V5	Namibia
	V6	Fed. States of Micronesia
	V7	Marshall Is.
	V8	Brunei
	V9	Venda
W		United States of America
XE,XF		Mexico
	XF4	Revilla Gigedo Is
XT		Burkina Faso
XU		Cambodia
XV		Vietnam
XW		Laos
XX		Macao
XZ		Myanmar
YA		Afghanistan
YB,YC,YD		Indonesia
YI		Iraq
YJ		Vanuatu
YK		Syria
YL		Latvia
YN		Nicaragua
YO		Romania
YS		El Salvador
YU		Yugoslavia
YV		Venezuela
	YVØ	Aves Is
Y2-Y9		German Dem. Republic (East)
ZA		Albania
ZB2		Gibraltar
ZC		Cyprus (Br. Forces)
ZD7		Saint Helena Is.
ZD8		Ascension Is
ZD9		Tristan da Cunha & Gough Is.
ZF		Cayman Is
ZK1		Cook & Manihiki Is.
ZK2		Niue Is
ZK3,ZM7		Tokelau Is.
ZL		New Zealand & Auckland, Campbell, Chatham, Kermadec Is.
	ZL5	New Zealand Antarctica
ZP		Paraguay
ZR,ZS1		Republic of South Africa
	ZS1	South African Antarctica
	ZS2	Prince Edward & Marion Is.
ZS9		Walvis Bay
Z2		Zimbabwe
1AØ		Sovereign Military Order of Malta
1S		Spratly Is.
3A		Monaco
3B6		Agalega Is
3B7		St. Brandon Is.
3B8		Mauritius Is.
3B9		Rodriguez Is.
3C		Equatorial Guinea
3D2		Fiji Is.
3D2		Conway
3D2		Rotuma
3DA		Swaziland
3V		Tunisia
3X		Guinea
3Y		Bouvet Is
3Y		Norwegian Antarctica
4F		Philippines
4J		Malyj Vysotskij Is
4K1		Russian Antarctica
4S		Sri Lanka
4U		United Nations
4W		North Yemen
4X,4Z		Israel
5A		Libya
5B		Cyprus
5H1		Zanzibar (Tanzania)
5H3		Tanzania
5L		Liberia
5N		Nigeria
5R		Madagascar
5T		Mauritania
5U		Niger
5V		Togo
5W		Western Samoa
5X		Uganda
5Z		Kenya
6W		Senegal
6Y		Jamaica
7J		Japan
7Q		South Yemen
7P		Lesotho
7Q		Malawi
7X		Algeria
7Z		Saudi Arabia
8J		Japanese Antarctica
8P		Barbados
8Q		Maldive Is.
8R		Guyana
9G		Ghana
9H		Malta
	9H4	Gozo (Malta)
9I,9J		Zambia
9K		Kuwait
9L		Sierra Leone
9M2		West Malaysia
9M6		Sabah
9M8		Sarawak
9N		Nepal
9Q		Zaire
9U		Burundi
9V		Singapore
9X		Rwanda
9Y		Trinidad & Tobago

TELEGRAPH CODES

Continental Code		Morse Code	
Used in ham radio		Used on land lines in United States and Canada	
A	• –	A	• –
B	– • • •	B	– • • •
C	– • – •	C	• • • •
D	– • •	D	– • •
E	•	E	•
F	• • – •	F	• – •
G	– – •	G	– – •
H	• • • •	H	• • • •
I	• •	I	• •
J	• – – –	J	– • – •
K	– • –	K	– • –
L	• – • •	L	——
M	– –	M	– –
N	– •	N	– •
O	– – –	O	• •
P	• – – •	P	• • • • •
Q	– – • –	Q	• • – •
R	• – •	R	• • •
S	• • •	S	• • •
T	–	T	–
U	• • –	U	• • –
V	• • • –	V	• • • –
W	• – –	W	• – –
X	– • • –	X	• – • •
Y	– • – –	Y	• • • •
Z	– – • •	Z	• • • •
		&	• • • •

There are no space letters in the Continental Code

C, O, R, Y, Z, and & are composed of dots and spaces
T is a short dash
L is a longer dash
Zero (0) is usually abbreviated to T

Figures		Figures	
1	• – – – –	1	• – – –
2	• • – – –	2	• • – • •
3	• • • – –	3	• • • – •
4	• • • • –	4	• • • • –
5	• • • • •	5	– – –
6	– • • • •	6	• • • • • •
7	– – • • •	7	– – • •
8	– – – • •	8	– • • • •
9	– – – – •	9	– • • –
0	– – – – –	0	——

Punctuation		Punctuation	
(.)	• – • – • –	(.)	• • – – • •
(,)	– – • • – –	(,)	• – • –
(?)	• • – – • •	(?)	– • • – •
(:)	– – – • • •	(:)	– • – • •
(;)	– • – • – •	(;)	• • • • •
(–)	– • • • • –	(-)	• • • • • – • •
(!)	None at present	(!)	– – – •
(')	• – – – – •	(')	• • – • • – • •
(/)	– • • – •	(/)	• • – –
(	– • – – •	(	• • • • • – •
)	– • – – • –	)	• • • • • • • •
(")	• – • • – •	(")	• • – • – •
		(")	• • – • – • – •

Emergency Signal

In a dire emergency situation use SOS by code, MAYDAY by voice.

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The world-famous 2nd Op by N6RJ is now available in an expanded electronic program for IBM PC® and compatible computers. Here is a sample of the features instantly available:

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  Bearings: Direct/Long path/Reciprocal
  Ranges: Miles/Kilometers
  Postal information
  QSL Bureau information
- Full-featured logging system with Editing/Deletion capability and a Scan Log function by Date/Call
- Compute Sunrise/Sunset for any day in all countries
- Full ITU call sign allocations list
- Quick Display shows DXCC Country data in a convenient spreadsheet format
- Complete "Help" screens for all functions
- Full-color display capability (user configurable)
- Powerful printing capabilities
- Comprehensive Users Manual
- Not copy protected

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RACB005

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Illinois residents add 6.5 % sales tax		_____
Shipping Charge		3.00
Amount enclosed $		_____

Call letters _____

Name _____

Address _____

City _____ St _____ Zip _____

PREFIXES — BY COUNTRIES

Country	Zone	Prefix
Afghanistan	21	YA
Agalega Is	39	3B6
Aland Is	15	OHO
Alaska	1	KL7
Albania	15	ZA
Algeria	33	7X
Amsterdam & St. Paul Is	39	FT8Z
Andaman & Nicobar Is	26	VU7
Andorra	14	C3
Angola	36	D2,D3
Aran Is	14	EJ0
Argentina	13	LU
Aruba	9	P4
Ascension Is	36	ZD8
Auckland Is	32	ZL
Australia	29 30	VK
Austria	15	OE
Aves Is	8	YV
Azores Is	14	CU
Bahama Is	8	C6
Bahrain	21	A9
Baker Is	31	KH1
Balearic Is	14	EA6
Banaba	31	T33
Bangladesh	22	S2,S3
Barbados	8	8P
Belgium	14	ON
Belize	7	V3
Benin	35	TY
Bermuda Is	5	VP9
Bhutan	22	A5
Bolivia	10	CP
Bonaire	9	PJ
Botswana	38	A2
Bouvet Is	38	3Y
Brazil	11	PP-PY
Brunei	28	V8
Bulgaria	20	LZ
Burkina-Faso	35	XT
Burundi	36	9U
Cambodia	26	XU
Cameroon	36	TJ
Campbell Is	32	ZL
Canada	1,2,3,4,5	VE
Canary Is	33	EA8
Cape Verde	35	D4
Capri Is	15	IC
Cayman Is	8	ZF
Central African Republic	36	TL
Ceuta & Melilla (Spain)	33	EA9
Chad	36	TT
Chagos	39	VQ9
Chatham Is	32	ZL
Chile	12	CE
China	23 24	B
Christmas Is	29	VK9X
Clipperton Is	7	FO
Cocos Is	7	TI9
Cocos (Keeling) Is	29	VK9Y
Colombia	9	HK
Comoros	39	D6
Congo	36	TN
Conway	32	3D2
Cook Is	32	ZK1
Corsica	15	TK
Costa Rica	7	TI
Crete	20	SV9
Crozet Is	39	FT8W
Cuba	8	CM CO
Curacao	9	PJ
Cyprus	20	ZC 5B
Czechoslovakia	15	OK,OL
Denmark	14	OZ
Djibouti	37	J2
Dodecanese Is	20	SV5
Dominican Republic	8	HI
Easter Is	12	CE0A
Ecuador	10	HC
Egypt	34	SU
El Salvador	7	YS
England	14	G
Equatorial Guinea	36	3C
Estonia	15	UR,ES
Ethiopia	37	ET
Faroe Is	14	OY
Falkland Is	13	VP8
Fed. States of Micronesia	27	V6
Fernando de Noronha	11	PY0
Fiji Is	32	3D2
Finland	15	OH
France	14	F
French Guiana	9	FY
French Polynesia	31 32	FO
Gabon	36	TR
Galapagos Is	10	HC8
Gambia, The	35	C5
German Dem. Rep. (East)	14	Y2,Y9
Germany, Fed. Rep. of (West)	14	DA-DP
Ghana	35	9G
Gibraltar	14	ZB2
Glorioso Is	39	FR
Gough Is	38	ZD9
Gozo (Malta)	15	9H
Graham Land	13	LU,VP8
Greece	20	SV
Greenland	40	OX
Guadeloupe	8	FG
Guam	27	KH2
Guantanamo Bay	8	KG4
Guatemala	7	TG
Guernsey, Bailiwick of	14	GU
Guinea-Bissau	35	J5
Guinea	35	3X
Guyana	9	8R
Hawaii	31	KH6
Haiti	8	HH
Heard Is	39	VK0
Honduras	7	HR
Hong Kong	24	VS6
Howland Is	31	KH1
Hungary	15	HA,HG
Iceland	40	TF
India	22	VU
Indonesia	28	YB,YC,YD
Iran	21	EP
Iraq	21	YI
Ireland	14	EI
Ischia	15	IC
Isle of Man	14	GD
Israel	20	4X,4Z
Italy	15	I-IZ
Ivory Coast	35	TU
Jamaica	8	6Y
Jan Mayen Is	40	JX
Japan	25	JA,JS,7J,8J
Japan, U.S. Personnel in	25	KA
Jarvis Is	31	KH5
Jersey	14	GJ
Johnston Is	31	KH3
Jordan	20	JY
Juan de Nova Is	39	FR
Juan Fernandez Is	12	CE0Z
Kenya	37	5Z
Kerguelen Is	39	FT8X
Kermadec Is	32	ZL
Kiribati	31	T3
Korea	25	HL,HM
Kure Is	31	KH7
Kuwait	21	9K
Labrador (Canada)	2	VO2
Laccadive Is	22	VU7
Lampedusa Is	33	IG
Laos	26	XW
Latvia	15	UQ YL
Lebanon	20	OD
Leeward Is		
Anguilla	8	VP2E
Antigua	8	V2
British Virgin Is	8	VP2V
Montserrat	8	VP2M
St. Kitts, Nevis	8	V4
Lesotho	38	7P
Liberia	35	EL,5L
Libya	34	5A
Liechtenstein	14	HB0
Lithuania	15	UP LY
Lord Howe Is	30	VK2
Luxembourg	14	LX
Macao	24	XX
Macquarie Is	30	VK0
Madagascar	39	5R
Maddalena Is	15	IM
Madeira Is	33	CT3
Malawi	37	7Q
Malaysia, West	28	9M2
Maldive Is	22	8Q
Mali	35	TZ
Malpelo	9	HK0
Malta	15	9H
Mayji Vysotskij Is	16	4J
Mariniki	32	ZK1
Mariana Is	27	KH0
Market Reef	15	OJ0
Marshall Is	31	V7
Martinique	8	FM
Mauritania	35	5T
Mauritius Is	39	3B8
Mayotte	39	FH
Mexico	6	XE,XF
Midway Is	31	KH4
Minami-Tori-Shima	27	JD1
Monaco	14	3A
Mongolia	23	J1
Morocco	33	CN
Mozambique	37	C8,C9
Myanmar	26	XZ
Namibia	38	V5
Nauru	31	C2
Navassa Is	8	KP1
Nepal	22	9N
Netherlands	14	PA-PI
Netherlands Antilles	8,9	PJ
New Caledonia	32	FK
Newfoundland (Canada)	5	VO1
New Zealand	32	ZL
Nicaragua	7	YN
Niger	35	5U
Nigeria	35	5N
Niue Is	32	ZK2
Norfolk Is	32	VK9N
Northern Ireland	14	GI
Norway	14	LA-LJ
Ogasawara Is	27	JD1
Okinawa (Ryukyu Is.)	25	JR6
Oman	21	A4
Pakistan	21	AP
Palmyra Is	31	KH5
Panama	7	HP
Pantellaria Is	33	IH
Papua New Guinea	28	P2
Paraguay	11	ZP
Peru	10	OA
Philippines	27	DU-DZ 4F
Pitcairn Is	32	VR6
Poland	15	SP
Portugal	14	CT
Prince Edward Is. (Canada)	5	VE1,VY2
Prince Edward & Marion Is	38	ZS2
Puerto Rico	8	KP4
Qatar	21	A7
Reunion Is	39	FR
Revilla Gigedo Is.	6	XF4
Rodriguez Is	39	3B9
Romania	20	YO
Rota Is	27	KH0
Rotuma	32	3D2
Rwanda	36	9X
Sabah	28	9M6
Saba Is	8	PJ
St. Barthelemy	8	FJ
St. Brandon Is	39	3B7
St. Helena Is	36	ZD7
St. Martin Is	8	FS
St. Peter & St. Paul Rocks	11	PY0
St. Pierre & Miquelon Is	5	FP
Saipan Is	27	KH0
Samoa, American	32	KH8
Samoa, Western	32	5W
San Andres & Providencia Is.	7	HK0
San Felix Is	12	CE0X
San Marino	15	T7
Sao Tome & Principe	36	S9
Sarawak	28	9M8
Sardinia	15	IS
Saudi Arabia	21	HZ,7Z
Scotland	14	GM
Senegal	35	6W
Seychelles	39	S79
Sicily	15	IT
Sierra Leone	35	9L
Singapore	28	9V
Sint Eustatius	8	PJ
Sint Maarten Is.	8	PJ
Solomon Is	28	H4
Somalia	37	T5
South Africa, Rep. of	38	ZR,ZS
South Georgia Is	13	VP8
South Orkney Is	13	LU,VP8
South Sandwich Is	13	LU VP8
South Shetland Is	13	CE9 LU VP8
Soviet Union		
Russian S.F.S.R.	16,17,18,19	UA UN UV UW UZ
Armenian S.S.R.	21	UG
Azerbaijan S.S.R.	21	UD
Byelorussian S.S.R.	16	UC
Estonian S.S.R.	15	UR
Georgian S.S.R.	21	UF
Kazakh S.S.R.	17	UL
Kirghiz S.S.R.	17	UM
Latvian S.S.R.	15	UQ
Lithuanian S.S.R.	15	UP
Moldavian S.S.R.	16	UO
Tadzhik S.S.R.	17	UJ
Turkmen S.S.R.	17	UH
Ukrainian S.S.R.	16	UB UT UY
Uzbek S.S.R.	17	UI
Spain	14	EA
Sri Lanka	22	4S
Sudan	34	ST
Suriname	9	PZ
Svalbard Is	40	JW
Swan Is	7	HR0
Swaziland	38	3DA0
Sweden	14	SJ-SM
Switzerland	14	HB
Syria	20	YK
Taiwan	24	BV
Tanzania	37	5H3
Thailand	26	HS
Tinian	27	KH0
Togo	35	5V
Tokelau Is	31	ZK3,ZM7
Tonga Is	32	A3
Transkei	38	S8
Trindade & Martim Vaz Is	11	PY0
Trinidad & Tobago Is	9	9Y
Tristan da Cunha Is	38	ZD9
Tromelin Is	39	FR
Tunisia	33	3V
Turkey	20	TA-TC
Turks & Caicos Is	8	VP5
Tuscan Archipelago	15	IA
Tuvalu Is	31	T2
Uganda	37	5X
United Arab Emirates	21	A6
United Nations	5,14	4U
United States of America	1,3,4,5,31	A,K,N,W
Uruguay	13	CX
Vanuatu	32	YJ
Vatican City	15	HY
Venezuela	9	YV
Vietnam	26	XV
Virgin Is. (British)	8	VP2V
Virgin Is. (U.S.)	8	KP2
Wake Is.	31	KH9
Wales	14	GW
Wallis & Futuna Is.	32	FW
Walvis Bay	38	ZS9
Western Sahara	33	S0
Willis Is.	30	VK9Z
Windward Is		
Dominica	8	J7
Grenada	8	J3
St. Lucia	8	J6
St. Vincent, Grenadines	8	J8
Yemen (North)	21	4W
Yemen (South)	21	7O
Yugoslavia	15	YU
Yukon Territory (Canada)	1	VY1
Zaire	36	9Q
Zambia	36	9I,9J
Zanzibar (Tanzania)	37	5H1
Zimbabwe	38	Z2

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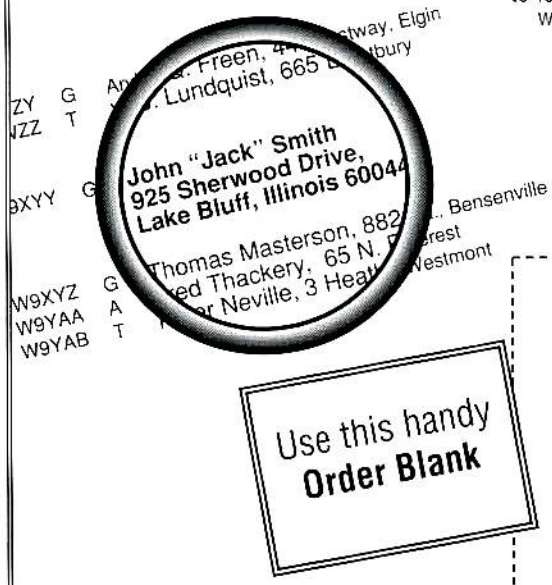

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- Zone identification from the popular CQ Worked All Zones Award (WAZ).
- Postal rates for air mail letters and postcards from the United States to the indicated country.
- IRC's required to prepay an air mail QSL card response from the indicated country to the United States.
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1991

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Address _____
City _____ St _____ Zip _____

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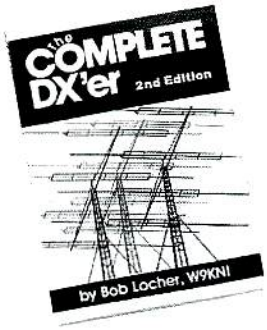
AP-AS	Pakistan
A2	Botswana
A3	Tonga
A4	Oman
A5	Bhutan
A6	United Arab Emirates
A7	Qatar
A9	Bahrain
BV	Taiwan
BY, BT	China
CA-CE	Chile
CE9,ATØ,DPØ FT8Y,KC4,LA,LU,OR4, UA1,UK1,VKØ,VP8,Y8,ZL5,ZS1,ZXØ, 3Y,4K1,8J	Antarctica
CEØ	Easter Is.
CEØ	San Felix Is.
CEØ	Juan Fernandez Is.
CM, CO	Cuba
CN	Morocco
CP	Bolivia
CT	Portugal
CT3	Madeira Is.
CU	Azores
CV-CX	Uruguay
CY9	St. Paul Is.
CYØ	Sable Is.
C2	Nauru
C3	Andorra
C5	The Gambia
C6	Bahamas
C8, C9	Mozambique
DA-DR	Fed. Rep. of Germany (West)
DU-DZ	Philippines
D2, D3	Angola
D4	Cape Verde
D6	Comoros
EA-EH	Spain
EA6-EH6	Balearic Is.
EA8-EH8	Canary Is.
EA9-EH9	Ceuta and Melilla
EI-EJ	Ireland
EL	Liberia
EP-EQ	Iran
ET	Ethiopia
F	France
FG	Guadeloupe
FH	Mayotte
FJ, FS	Saint Martin
FK	New Caledonia
FM	Martinique
FO	Clipperton Is.
FO	French Polynesia
FP	St. Pierre & Miquelon
FR/G	Glorioso Is.
FR/J, FR/E	Juan de Nova, Europa
FR	Reunion
FR/T	Tromelin
FT8W	Crozet Is.
FT8X	Kerguelen Is.
FT8Z	Amsterdam & St. Paul Is.
FW	Wallis & Futuna Is.
FY	French Guiana
G	England
GD	Isle of Man
GI	Northern Ireland
GJ	Jersey
GM	Scotland
GU	Guernsey & Dependencies
GW	Wales
HA, HG	Hungary
HB	Switzerland
HBØ	Liechtenstein
HC-HD	Ecuador
HC8-HD8	Galapagos Is.
HH	Haiti
HI	Dominican Republic
HJ-HK	Colombia
HKØ	Malpelo Is.
HKØ	San Andres & Providencia
HL	Korea
HO-HP	Panama
HQ-HR	Honduras
HS	Thailand
HV	Vatican
HZ	Saudi Arabia
H4	Solomon Is.
I	Italy
IMØ, ISØ	Sardinia
JA-JS	Japan
JD1	Minami-Tori-Shima
JD1	Ogasawara Is.
J1-JV	Mongolia
JW	Svalbard Is.
JX	Jan Mayen Is.
JY	Jordan
J2	Djibouti
J3	Grenada
J5	Guinea-Bissau
J6	St. Lucia
J7	Dominica
J8	St. Vincent & Dependencies
K, W, N, AA-AL	United States of America
KC6 (Western Caroline Is.)	Belau
KG4	Guantanamo Bay
KH1	Baker, Howland Is.
KH2	Guam
KH3	Johnston Is.
KH4	Midway Is.
KH5	Palmyra, Jarvis Is.
KH5K	Kingman Reef
KH6	Hawaiian Is.
KH7	Kure Is.
KH8	American Samoa
KH9	Wake Is.
KHØ	Mariana Is.
KL7	Alaska
KP1	Navassa Is.
KP2	Virgin Is.
KP4	Puerto Rico
KP5	Desecheo Is.
LA-LN	Norway
LO-LW	Argentina
LX	Luxembourg
LZ	Bulgaria
OA-OC	Peru
OD	Lebanon
OE	Austria
OF-OI	Finland
OHØ	Aland Is.
OJØ	Market Reef
OK-OM	Czechoslovakia
ON-OT	Belgium
OX	Greenland
OY	Faroes
OZ	Denmark
PA-PI	Netherlands
PJ2, 3, 4	Bonaire, Curacao (Neth. Antilles)
PJ5, 6, 7, 8	Sint Maarten, Saba, & Sint Eustatius Is.
PP-PY	Brazil
PPØ-PYØ	Fernando de Noronha
PPØ-PYØ	St. Peter & St. Paul Rocks
PPØ-PYØ	Trindade & Martim Vaz Is.
PZ	Surinam
P2	Papua New Guinea
P4	Aruba
SA-SM	Sweden
SN-SR	Poland
ST	Sudan
STØ	Southern Sudan
SU	Egypt
SV-SZ	Greece
SV5	Dodecanese Is.
SV9	Crete
SV/A	Mount Athos
S2	Bangladesh
S7	Seychelles
S9	Sao Tome & Principe
SØ	Western Sahara
TA-TC	Turkey
TF	Iceland
TG, TD	Guatemala
TI, TE	Costa Rica
TI9	Cocos Is.
TJ	Cameroon
TK	Corsica
TL	Central African Rep.
TN	Congo
TR	Gabon
TT	Chad
TU	Ivory Coast
TY	Benin
TZ	Mali
T2	Tuvalu
T3Ø	West Kiribati (Gilbert & Ocean Is.)
T31	Cent. Kiribati (Br. Phoenix Is.)
T32	East Kiribati (Line Is.)
T33	Banaba Is.
T5	Somalia
T7	San Marino
UA1, 3, 4, 6	European R.S.F.S.R.
UA1	Franz Josef Land
UA2	Kaliningrad
UA9, UAØ	Asiatic R.S.F.S.R.
UB, UT, UY	Ukraine
UC	Byelorussia
UD	Azerbaijan
UF	Georgia
UG	Armenia
UH	Turkmenistan
UI	Uzbekistan
UJ	Tadzhikistan
UL	Kazakhstan
UM	Kirghizia
UO	Moldavia
UP	Lithuania
UQ	Latvia
UR	Estonia
VE, VO, VY	Canada
VK	Australia
VK	Lord Howe Is.
VK9	Willis Is.
VK9	Christmas Is.
VK9	Cocos (Keeling) Is.
VK9	Mellish Reef
VK9	Norfolk Is.
VKØ	Heard Is.
VKØ	Macquarie Is.
VP2E	Anguilla
VP2M	Montserrat
VP2V	British Virgin Is.
VP5	Turks & Caicos Is.
VP8	Falkland Is.
VP8, LU	South Georgia Is.
VP8, LU	South Orkney Is.
VP8, LU	South Sandwich Is.
VP8, CE9, HFØ, LU, 4K1	South Shetland Is.
VP9	Bermuda Is.
VQ9	Chagos Arch.
VR6	Pitcairn Is.
VS6	Hong Kong
VU	India
VU	Andaman & Nicobar Is.
VU	Laccadive Is.
V2	Antigua, Barbuda
V3	Belize
V4	St. Kitts and Nevis
V5	Namibia
V7	Marshall Is.
V8	Brunei
XA-XI	Mexico
XA4-XI4	Revilla Gigedo
XT	Burkina-Faso
XU	Kampuchea
XW	Laos
XXØ	Macao
XY, XZ	Myanmar
YA	Afghanistan
YB-YH	Indonesia
YI	Iraq
YJ	Vanuatu
YK	Syria
YN	Nicaragua
YO-YR	Romania
YS	El Salvador
YT, YU, YZ	Yugoslavia
YV-YY	Venezuela
YVØ	Aves Is.
Y2-Y9	German Dem. Rep. (East)
ZA	Albania
ZB2	Gibraltar
ZC4	U.K. Sovereign Bases on Cyprus
ZD7	St. Helena
ZD8	Ascension Is.
ZD9	Tristan da Cunha & Gough Is.
ZF	Cayman Is.
ZK1	South Cook Is.
ZK1	North Cook Is.
ZK2	Niue
ZK3	Tokelau Is.
ZL, ZM	New Zealand
ZL7	Chatham Is.
ZL8	Kermadec Is.
ZL9	Auckland Is. & Campbell Is.
ZP	Paraguay
ZR-ZU	Rep. of South Africa
ZR2-ZU8	Prince Edward & Marion Is.
ZS9	Walvis Bay
Z2	Zimbabwe
1AØ	Sovereign Military Order of Malta
1S	Spratly Is.
3A	Monaco
3B6, 3B7	Agalega & St. Brandon Is.
3B8	Mauritius Is.
3B9	Rodriguez Is.
3C	Equatorial Guinea
3CØ	Pagalu Is.
3D2	Fiji Is.
3D2	Conway Reef
3D2	Rotuma Is.
3DA	Swaziland
3V	Tunisia
3W, XV	Vietnam
3X	Guinea
3Y	Bouvet
3Y	Peter I Is.
4J	Malyj Vysotskij Is.
4P-4S	Sri Lanka
4U	I.T.U. Geneva
4U	UN Hq. New York
4W	Yemen
4X, 4Z	Israel
5A	Libya
5B	Cyprus
5H-5I	Tanzania
5N-5O	Nigeria
5R-5S	Madagascar
5T	Mauritania
5U	Niger
5V	Togo
5W	Western Samoa
5X	Uganda
5Y-5Z	Kenya
6V-6W	Senegal
6Y	Jamaica
7O	South Yemen
7P	Lesotho
7Q	Malawi
7T-7Y	Algeria
8P	Barbados
8Q	Maldive Is.
8R	Guyana
9G	Ghana
9H	Malta
9I-9J	Zambia
9K	Kuwait
9L	Sierra Leone
9M2, 9M4	Malaysia
9M6, 9M8	Eastern Malaysia
9N	Nepal
9Q-9T	Zaire
9U	Burundi
9V	Singapore
9X	Rwanda
9Y-9Z	Trinidad & Tobago
	Abu Ali, Jabal at Tair



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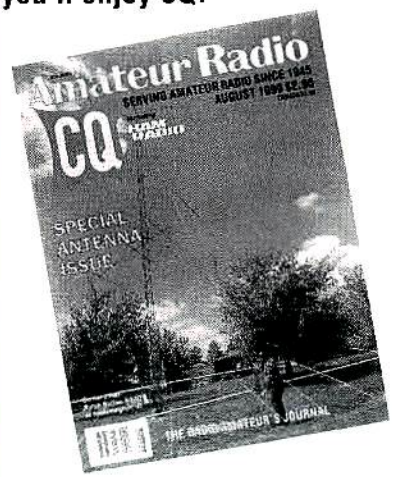

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Impossible to memorize, this random code practice tape has voice answers, ideal for beginning students.

5 - 7 WPM SPEED BUILDER TAPE #GW0507
This narrated stereo tape will take your code speed from 5 to 7 wpm with random exercises, QSO's, words, and procedural signs.

7 - 10 SPEED BUILDER TAPE #GW0710
Use this narrated tape to increase your code speed from 7 to 10 wpm with random code, QSO's, and phrases similar to those on the General code test.

10 WPM PLATEAU BREAKER CODE TAPE #GW1010
Stuck at 10 wpm? Gordon West will help you overcome the dreaded plateau with this humorous narrated code tape.

10 - 12 WPM SPEED BUILDER CODE TAPE #GW1012
This stereo tape prepares you to copy code near 13 wpm for the General code test. It's great for anyone "rusty" at 13 wpm.

12 - 15 WPM CALLS AND NUMBERS CODE TAPE #GW1234
This long-play cassette tape is ideal to build up confidence with numbers and difficult call signs in preparing for the General class 13 wpm code test.

13 - 15 WPM RANDOM CODE TAPE #GW0113
This narrated long-play code cassette tape is impossible to memorize. It gives ample practice at 13, 14, and 15 wpm in preparation for the General class code test.

13 WPM GENERAL CODE TEST TAPE #GW1310
This tape features 10 QSO's containing all the FCC required numbers, letters, punctuation marks, and procedural signs. This tape is almost identical to the Volunteer Examiner tests. Each QSO is narrated after it's sent and Gordon West gives you suggestions on how to remain calm during the actual code test.

13 WPM CAR CODE TAPE #GW0183
This stereo tape contains code on one channel and Gordon West's narration on the other channel. This is ideal to play in a car, saying the characters aloud. At home, turn off the voice channel and practice the code by itself.

13 - 15 WPM SPEED BUILDER CODE TAPE #GW1315
This stereo tape will start you toward the Extra class code test with narrated random code, partial QSO's, and the complete words found on this test.

15 - 17 WPM SPEED BUILDER CODE TAPE #GW1517
This narrated stereo tape will help you increase your code speed with random code, QSO's, and the words found on the Extra class code test.

17 - 19 WPM SPEED BUILDER CODE TAPE #GW1719
This long-play stereo code tape helps prepare you for the Extra class 20 wpm code test. You can pick up at least 2 wpm additional speed with this humorous and educational narrated tape.

20 WPM RANDOM CODE TAPE #GW2020
This stereo tape contains random code characters with narrated answers after each 6 minute run. There is special emphasis on those tough letters and numbers often found on the Extra class code test.

20 WPM EXTRA CODE TAPE #GW1221
This long-play cassette tape covers typical QSO-style tests at 20 wpm, 21 wpm, and 22 wpm. After each QSO, Gordon West narrates what you should have copied and gives suggestions. These QSO's are almost identical to those on the Volunteer Examiner tests.

20 WPM EXTRA CAR CODE TAPE #GW0200
Dual track 20 to 22 wpm code and voice narration, ideal for playing in a car in preparation for the Extra class code test. Turn off the voice channel when you're at home.

5 - 15 GENERAL CLASS REVIEW CODE TAPE #GW0315
Features random code with narrated answers, starting at 5 wpm and increasing in steps up to 15 wpm.

12 - 21 WPM EXTRA CLASS CODE REVIEW TAPE #GW1322
Random code with narrated answers, starting at 13 wpm. The speed in increased in steps every few minutes up to a maximum of 21 wpm.

3 to 13 wpm code tapes use 13 wpm character speed

BRASS TELEGRAPH KEY & OSCILLATOR #GW0060...$22.95 plus shipping
Includes a completely assembled code practice oscillator, brass telegraph key, and code sending instructions. This quality key is ideal for code practice or on-the-air telegraphy. Its ball bearing action assures smooth CW sending.

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1991

STANDARD TIME THROUGHOUT THE WORLD

The standard time system is based on the theoretical division of the surface of the globe into 24 zones, each of 15° of longitude. The initial zone is the one which has as its central meridian the Greenwich Meridian and with the meridians 7° 30' E. and 7° 30' W. as its eastern and western limits. Time in this zone is called Universal Coordinated Time, or UTC. Places to the east of Greenwich are ahead of UTC, while places to the west are behind UTC. Not all countries follow the International Time Zone System, but will use the time of some principal city as a standard or will have no standard time at all.

Reference - 'Standard Time Chart of the World' No. 5192, published by the U.S. Navy Hydrographic Office, Washington D.C.

The theoretical system described is applied, in a strict sense, only in oceanic regions. On land or on groups of islands the system is applied with certain local deviations made necessary by frontiers or to permit an entire island group to have the same time zone. The time used in each country, whether it is the time of the corresponding zone or a modified time, is fixed by law and is called legal time, or more generally, standard time.

Another deviation from this theoretical system is that certain countries, for economic reasons, modify their legal time for part of the year (especially in summer) by advancing it an hour or another fraction of time. Where such deviations are maintained on a year-around basis, the time kept is considered to be standard time.

Country	Standard or local time: Hours fast or slow of UTC	Time at 12:00 hrs. UTC
Afghanistan	+ 4½	16 30
Aland Is	+ 2	14 00
Alaska	- 9	03 00
Aleutian Is	- 10	02 00
Albania	+ 1	13 00
Algeria	0	12 00
Amsterdam Is	+ 5	17 00
Andaman Is	+ 5½	17 30
Andorra	+ 1	13 00
Angola	+ 1	13 00
Anguilla	- 4	08 00
Antigua	- 4	08 00
Argentina	- 3	09 00
Aruba Is	- 4	08 00
Ascension Is	0	12 00
Auckland Is	+ 12	24 00
Australia: Western Australia	+ 8	20 00
Northern Territory, South Australia	+ 9½	21 30
New South Wales, Queensland, and Victoria	+ 10	22 00
Austria	+ 1	13 00
Azores Is	- 1	11 00
Bahamas	- 5	07 00
Bahrain	+ 3	15 00
Baker Is (U.S.)	- 11	01 00
Baleanic Is	+ 1	13 00
Bangladesh	+ 6	18 00
Barbados	- 4	08 00
Belgium	+ 1	13 00
Belize	- 6	06 00
Benin	+ 1	13 00
Bermuda Is	- 4	08 00
Bhutan	+ 6½	18 30
Bolivia	- 4	08 00
Bonaire	- 4	08 00
Borneo (Indonesia)	+ 8	20 00
Botswana	+ 2	14 00
Brazil: East of 52° 30' W. (approx.)	- 3	09 00
Amazonas, Matto Grosso	- 4	08 00
Acre Territory	- 5	07 00
British Isles	0	12 00
Brunei	+ 8	20 00
Bulgaria	+ 2	14 00
Burkina - Faso	0	12 00
Burundi	+ 2	14 00
Caicos Is	- 4	08 00
Cambodia	+ 7	19 00
Cameroon	+ 1	13 00
Campbell Is	+ 12	24 00
Canada: Belle Isle, Labrador, and Newfoundland	- 3½	08 30
Anticosti Is., Cape Breton Is., Magdalen Is., New Brunswick, Nova Scotia, Prince Edward Is., Quebec (E of 68° W), and Sable Is.	- 4	08 00
Melville Peninsula (east), Ontario (E of 90° W), Quebec (W of 68°), and Southhampton Is	- 5	07 00
Manitoba, Ontario (W of 90° W), Melville Peninsula (west), and N.W. Territories (east)	- 6	06 00
Alberta, Saskatchewan, and N.W. Territories (middle)	- 7	05 00
British Columbia and N.W. Territories (west)	- 8	04 00
Yukon	- 8	04 00
Arctic Is. (No definite standard time used.)		
Canary Is	0	12 00
Cape Verde	- 1	11 00
Caroline Is.: Palau	+ 9	21 00
Truk	+ 10	22 00
Ponape	+ 11	23 00
Cayman Is	- 5	07 00
Celebes Is. (Indonesia)	+ 8	20 00
Central African Republic	+ 1	13 00
Chad	+ 1	13 00
Chagos Is	+ 5	17 00
Chatham Is	+ 12¾	00 45
Chile	- 4	08 00
China	+ 8	20 00
Christmas Is	+ 7	19 00
Clipperton Is	- 7	05 00
Cocos Is	- 8	06 00
Cocos (Keeling) Is	+ 6½	18 30
Colombia	- 5	07 00
Comoros	+ 3	15 00
Congo	+ 1	13 00
Cook Is	- 10½	01 30
Corsica	+ 1	13 00
Costa Rica	- 6	06 00
Crete	+ 2	14 00
Crozetts	+ 3	15 00
Cuba	- 5	07 00
Curacao	- 4	08 00
Cyprus	+ 2	14 00
Czechoslovakia	+ 1	13 00
Denmark	+ 1	13 00
Diego Garcia	+ 5	17 00
Djibouti	+ 3	15 00
Dominica	- 4	08 00
Dominican Republic	- 4	08 00
Easter Is	- 7	05 00
Ecuador	- 5	07 00
Egypt	+ 2	14 00
El Salvador	- 6	06 60
Enderbury Is. (Kiribati)	- 11	01 00
Equatorial Guinea	+ 1	13 00
Ethopia	+ 3	15 00
Falkland Is	- 4	08 00
Fanning Is	+ 10	02 00
Faroes	0	12 00
Fernando de Noronha Is	- 2	10 00
Fiji Is	+ 12	24 00
Finland	+ 2	14 00
France	+ 1	13 00
French Guiana	- 3	09 00
French Polynesia	- 10	02 00
Gabon	+ 1	13 00
Galapagos Is	- 5	07 00
Gambia, The	0	12 00
Germany (East and West)	+ 1	13 00
Ghana	0	12 00
Gibraltar	+ 1	13 00
Gilbert Is. (Kiribati)	+ 12	24 00
Gough Is	0	12 00
Greece	+ 2	14 00
Greenland: Scoresbysound Area	- 2	10 00
Central	- 3	09 00
Thule Area	- 4	08 00
Grenada	- 4	08 00
Guadeloupe	- 4	08 00
Guam	+ 10	22 00
Guantanamo Bay	- 5	07 00
Guatemala	- 6	06 00
Guinea	0	12 00
Guinea-Bissau	0	12 00
Guyana	- 3	09 00
Haiti	- 5	07 00
Hawaii	- 10	02 00
Heard Is	+ 5	17 00
Honduras	- 6	06 00
Hong Kong	+ 8	20 00
Howland Is. (U.S.)	- 11	01 00
Hungary	+ 1	13 00
Iceland	0	12 00
India	+ 5½	17 30
Iran	+ 3½	15 30
Iraq	+ 3	15 00
Ireland	0	12 00
Israel	+ 2	14 00
Italy	+ 1	13 00
Ivory Coast	0	12 00
Jamaica	- 5	07 00
Jan Mayen Is	- 1	11 00
Japan	+ 0	21 00
Jarvis Is	- 10	02 00
Java (Indonesia)	+ 7	19 00
Johnston Is	- 10	02 00
Jordan	+ 2	14 00
Juan Fernandez Is. (Chile)	- 4	08 00
Karton Is. (Kiribati)	- 11	01 00
Kenya	+ 3	15 00
Kerguelen Is	+ 5	17 00
Kermadec Is	+ 12	24 00
Korea	+ 9	21 00
Kuwait	+ 3	15 00
Laccadive Is	+ 5½	17 30
Laos	+ 7	19 00
Lebanon	+ 2	14 00
Lesotho	+ 2	14 00
Liberia	0	12 00
Libya	+ 2	14 00
Liechtenstein	+ 1	13 00
Line Is. (Kiribati)	- 10	02 00
Lord Howe Is	+ 10½	22 30
Luxembourg	+ 1	13 00
Macao	+ 8	20 00
Macquarie Is	+ 11	23 00
Madagascar	+ 3	15 00
Madeira Is	0	12 00
Malawi	+ 2	14 00
Malaysia	+ 7½	19 30
Maldive Is	+ 5	17 00
Mali	0	12 00
Malta	+ 1	13 00
Manchuria	+ 8	20 00
Manihikis	- 11	01 00
Marianas	+ 10	22 00
Marquesas Is	- 9½	02 30
Marshall Is	+ 12	24 00
Martim Vaz Is	- 2	10 00
Martinque Is	- 4	08 00
Mauritania	0	12 00
Mauritius Is	+ 4	16 00
Mayotte	+ 3	15 00
Mexico: East of the States of Sonora, Sinaloa, and Nayarit	0	06 00
Sonora, Sinaloa, Nayarit, and Baja California (south of 28° N)	- 7	05 00
Baja California (north of 28° N)	- 8	04 00
Midway Is	- 11	01 00
Moluccas Is. (Indonesia)	+ 9	21 00
Monaco	+ 1	13 00
Mongolia	+ 8	20 00
Montserrat	- 4	08 00
Morocco	0	12 00
Mozambique	+ 2	14 00
Myanmar	+ 6½	18 30
Namibia	+ 2	14 00
Nauru	+ 11½	23 30
Navassa Is	- 5	07 00
Nepal	+ 5¾	17 40
Netherlands	+ 1	13 00
New Caledonia	+ 11	23 00
New Zealand	+ 12	24 00
Nicaragua	- 6	06 00
Nicobar Is	+ 5½	17 30
Niger	+ 1	13 00
Nigeria	+ 1	13 00
Niue	- 11	01 00
Norfolk Is	+ 11½	23 30
Norway	+ 1	13 00
Ogasawara Is	+ 9	21 00
Oman	+ 4	16 00
Pakistan	+ 5	17 00
Palmyra Is	- 10	02 00
Panama	- 5	07 00
Papua New Guinea	+ 10	22 00
Paraguay	- 4	08 00
Peru	- 5	07 00
Philippines	+ 8	20 00
Phoenix Is. (Kiribati)	- 11	01 00
Pitcairn Is	- 8½	03 30
Poland	+ 1	13 00
Portugal	0	12 00
Pribilof Is	- 11	01 00
Prince Edward & Marion Is	+ 3	15 00
Providencia Is	- 5	07 00
Puerto Rico	- 4	08 00
Qatar	+ 3	15 00
Reunion Is	+ 4	16 00
Revilla Gigedo Is	- 7	05 00
Romania	+ 2	14 00
Rwanda	+ 2	14 00
Ryukyu Is	+ 9	21 00
Sabah (Malaysia)	+ 8	20 00
St. Helena Is	0	12 00
St. Kitts, Nevis	- 4	08 00
St. Lucia	- 4	08 00
St. Paul Is	+ 5	17 00
St. Pierre & Miquelon Is	- 3	09 00
St. Vincent	- 4	08 00
Saipan	+ 10	22 00
Samoa Is	- 11	01 00
San Andres Is	- 5	07 00
San Marino	+ 1	13 00
Sao Tome & Principe Is	0	12 00
Sarawak (Malaysia)	+ 8	20 00
Sardinia	+ 1	13 00
Saudi Arabia	+ 3	15 00
Senegal	0	12 00
Seychelles Is	+ 4	16 00
Sicily	+ 1	13 00
Sierra Leone	0	12 00
Singapore	+ 8	20 00
Sint Eustatius	- 4	08 00
Sint Maarten	- 4	08 00
Solomon Is	+ 11	23 00
Somali Republic	+ 3	15 00
South Africa	+ 2	14 00
South Georgia Is., South Sandwich Is.	- 2	10 00
South Shetland Is., South Orkney Is. (No definite standard time used.)		
South Yemen	+ 3	15 00
Spain	+ 1	13 00
Sri Lanka	+ 5½	17 30
Sudan	+ 2	14 00
Sumatra (Indonesia)	+ 7	19 00
Surinam	- 3½	08 30
Svalbard Is	+ 1	13 00
Swan Is	- 6	06 00
Swaziland	+ 2	14 00
Sweden	+ 1	13 00
Switzerland	+ 1	13 00
Syria	+ 2	14 00
Taiwan	+ 8	20 00
Tanzania	+ 3	15 00
Tasmania (Australia)	+ 10	22 00
Thailand	+ 7	19 00
Timor Is. (Indonesia)	+ 8	20 00
Togo	0	12 00
Tonga	+ 13	01 00
Transkei	+ 2	14 00
Trindade Is	- 2	10 00
Trinidad & Tobago	- 4	08 00
Tristan da Cunha Is	0	12 00
Tromelin Is	+ 4	16 00
Tunisia	+ 1	13 00
Turkey	+ 3	15 00
Turks Is	- 4	08 00
Tuvalu	+ 12	24 00
Uganda	+ 3	15 00
United Arab Emirates	+ 4	16 00
United States of America, Eastern Time	- 5	07 00
Central Time	- 6	06 00
Mountain Time	- 7	05 00
Pacific Time	- 8	04 00
Uruguay	- 3	09 00
U.S.S.R.: Estonia, Latvia, Lithuania, Karelo-Finnish, Byelorussia, Ukraine, Moldavia, and European Russia	+ 3	15 00
Georgia, Armenia, and Azerbaijan	+ 4	16 00
Kazakh, Uzbek, Turkmen, Tadzhik	+ 5	17 00
Kirghiz, and West Siberian region	+ 6	18 00
approx. 82° 30' to 97° 30' W	+ 7	19 00
Buryat, East Siberian region	+ 8	20 00
approx. 112° 30' to 127° 30' W	+ 9	21 00
Kuril Is., Sakhalin Is	+ 10	22 00
approx. 142° 30' to 157° 30' W	+ 11	23 00
approx. 157° 30' to 172° 30' W	+ 12	24 00
approx. 172° 30' W to coast	+ 13	01 00
Vanuatu	+ 11	23 00
Vatican City	+ 1	13 00
Venezuela	- 4	08 00
Vietnam	+ 7	19 00
Virgin Is	- 4	08 00
Wake Is	+ 12	24 00
Wallis & Futuna Is	+ 12	24 00
Western Sahara	0	12 00
West Irian (Indonesia)	+ 9	21 00
West Indies	- 4	08 00
Yemen	+ 3	15 00
Yugoslavia	+ 1	13 00
Zaire	+ 2	14 00
Zambia	+ 2	14 00
Zanzibar (Tanzania)	+ 3	15 00
Zimbabwe	+ 2	14 00

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The Callbook has established a dedicated telephone line for this 24 hour On-Line Update Service. Users have access to listing information entered into the Callbook's master file which has not yet been published in a Callbook or Callbook Supplement. New licenses, upgrades, address changes, Silent Keys and "Then and Now" call sign changes are included.

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THE 1991 CALLBOOK SUPPLEMENT

You can keep your 1991 Callbook up to date for a full year with the new Callbook Supplement. And one Supplement will update both 1991 Callbooks!

The 1991 Callbook Supplement is a whole new idea in Callbook publications. Available June 1st, this Supplement lists the combined activity in both the North American Callbook and the International Callbook for the preceding 6 months. It includes thousands of new licenses, address changes, and "Then and Now" call changes from countries around the world. Whether you're a rag-chewer or DX'er, this is the QSL information you need!

The new 1991 Callbook Supplement will be available at better dealers on June 1, 1991. Or, you may order directly from the publisher using this coupon.

Publication: June 1, 1991

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INTERNATIONAL POSTAL RATES

These are the postal rates in effect at the time of this issue

	United States and Possessions	Canada	Mexico	All Other Countries
Surface Postcard (QSL)	$0.15	$0.21	$0.15	$0.28
Surface Letter (1 Ounce)	$0.25	$0.30	$0.25	$0.40*
Additional Ounces up to 12 ozs.	$0.20	$0.22	$0.20	
Air postcard (MSL)				$0.36
Air letter (each 1/2 Ounce)				$0.45**
Aerogramme				$0.39

* Over 1 up to 2 oz., $0.63; Over 2 up to 3 oz. $0.86
**Over 2 oz., $0.42 each additional half ounce.

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Afghanistan 5
Aland Is. (Fin.) 2
Albania 4
Algeria 2
Andorra 2
Angola 3
Anguilla 3
Antigua 2
Argentina 3
Ascension Is. 3
Australia 4
Austria 2
Azores Is. (Port.) 2

Bahama Is. 2
Bahrain 5
Balearic Is. (Spain) 2
Bangladesh 2
Barbados Is. 3
Belgium 2
Belize 2
Benin 2
Bermuda Is. 2
Bolivia 2
Botswana 5
Brazil 2
Brunei 4
Bulgaria 3
Burkina Faso 2
Burundi 3

Cambodia 3
Cameroon 2
Canada 2
Canary Is. (Spain) 2
Cape Verde 3
Cayman Is. 3
Central African Republic 2
Ceuta & Melilla (Spain) 2
Chad 2
China 3
Colombia 3
Comoros 3
Congo 2
Costa Rica 2
Crete (Greece) 2
Cuba 4
Cyprus 4
Czechoslovakia 2

Denmark 2
Djibouti 2
Dominica 2
Dominican Republic 2

Ecuador 3
Egypt 5
El Salvador 3
Equatorial Guinea 2
Ethiopia 3

Faroe Is. (Den.) 2
Falkland Is. (Br.) 3
Fiji Is. 4
Finland 2
France 2
French Guiana 2
French Polynesia 2

Gabon 2
Gambia, The 4
Germany, West 2
Germany, East 2
Ghana 3
Gibraltar (Br.) 2
Great Britain 2
Greece 2
Greenland (Den.) 2
Grenada 4
Guadeloupe 2
Guatemala 2
Guinea-Bissau 2
Guinea 2
Guyana 4

Haiti 5
Honduras 3
Hong Kong 5
Hungary 2

Iceland 2
India 3
Indonesia 3
Iran 4
Iraq 3
Ireland (Eire) 3
Israel 3
Italy 2
Ivory Coast 2

Japan 2
Jordan 3

Kenya 4
Kiribati 5
Korea 3
Kuwait 4

Lebanon 3
Lesotho 5
Liberia 5

Libya 2
Liechtenstein 2
Luxembourg 2
St. Pierre & Miquelon Is. (Fr.) 2
St. Thomas & Principe 3
St. Vincent 3
Samoa, Western 4
San Marino 3
Saudi Arabia 3
Scotland (U.K.) 2
Senegal 2
Seychelles 3
Sierra Leone 3
Singapore 5
Solomon Is. 2
South Africa, Rep. of 5
South Yemen 5
Spain 2
Sri Lanka 5
Sudan 3
Surinam 2
Swaziland 5
Sweden 2
Switzerland 2
Syria 3

Taiwan 3
Tanzania 4
Thailand 3
Togo 2
Tonga Is. 3
Trinidad & Tobago Is. 2
Tristan da Cunha Is. 3
Tunisia 2
Turkey 3
Turks & Caicos Is. 2
Tuvalu 5

Uganda 4
United Arab Emirates 4
Uruguay 2

Vanuatu 2
Vatican City 2
Venezuela 2
Vietnam 2
Virgin Is. (Br.) 2

Wales (U.K.) 2
West Irian (Indonesia) 3

Yugoslavia 3

Zaire 2
Zambia 2

Zanzibar (Tanzania) 4
Zimbabwe 5

Macao 3
Madeira Is. (Port.) 2
Madagascar 3
Malawi 6
Malaysia, West 5
Mali 2
Malta 2
Martinique (Fr.) 2
Mauritania 2
Mauritius Is. 3
Mexico 2
Montserrat 3
Morocco 2
Mozambique 3
Myanmar 4

Namibia 5
Nauru 2
Nepal 5
Netherlands 2
Netherlands Antilles 2
New Caledonia 2
New Zealand 3
Nicaragua 4
Niger 2
Nigeria 3
Northern Ireland (U.K.) 2
Norway 2

Oman 4

Pakistan 2
Panama 2
Papua New Guinea 3
Paraguay 3
Peru 3
Philippines 3
Poland 2
Portugal 2

Qatar 4

Reunion Is. (Fr.) 2
Romania 3
Rwanda 2

St. Helena Is. (Br.) 3
St. Kitts-Nevis 3
St. Lucia 3

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Properly designed, built, and installed vertical antennas do a fine job in small places. This clear, well-illustrated book covers the design, construction, installation, and operation of 52 vertical antennas: efficient Marconi antennas for 80 and 160 meters, multiband verticals, vertical loops, phased arrays, and shunt-fed towers. Also described are "radio" and electrical grounds, matching systems, tuners, loading coils, and TVI, plus the precautions necessary to protect yourself, your home, and your equipment from lightning damage... and much more! It's the most practical, authoritative vertical antenna handbook published.

BEAM ANTENNA HANDBOOK, by William I. Orr W6SAI and Stuart D. Cowan W2LX; 271 pages. $11.95 plus shipping

This popular new edition gives you: correct dimensions for 6, 10, 15, 20, and 40 meter beams; data on triband and compact beams; the truth about beam height; SWR curves for popular beams from 6 to 40 meters; and comparisons of T-match, Gamma match, and direct feed. Describes tests to confirm if your beam is working properly, tells how to save money by building your own beam and balun, and discusses test instruments and how to use them. A "must" for the serious DXer!

ALL ABOUT VHF AMATEUR RADIO, by William I. Orr W6SAI; 172 pages. $11.95 plus shipping

Covers VHF propagation and DX, the VHF repeater and how it works for you, VHF moonbounce work, and amateur satellite communication. Discusses vertical and horizontal mobile antennas, tells almost everything about coaxial cables, and describes VHF beam antennas you can build yourself. Covers SWR measurements, VHF interference and how to suppress it, even care of the Ni-cad battery. This is a complete handbook of VHF radio for amateurs.

THE RADIO AMATEUR ANTENNA HANDBOOK, by William I. Orr W6SAI and Stuart D. Cowan W2LX; 191 pages. $11.95 plus shipping

This clearly written, easy-to-understand handbook contains a wealth of information about amateur antennas, from beams to baluns, tuners, and towers. The exclusive "Truth Table" gives you the actual dB gain of 10 popular antenna types. Describes how to build multiband vertical and horizontal antennas, Quads, Mini-Quads, a Monster Quad, DX "slopers", triband beams, and V-F Quagi and log periodic Yagi beams. Dimensions are given for all antennas in English and metric units. Tells how antenna height and location affect results and describes efficient antennas for areas with poor ground conductivity. Covers radials, coaxial cable loss, "bargain" coax, baluns, SWR meters, wind loading, tower hazards, and the advantages and disadvantages of crank-up tilt-over towers.

SIMPLE, LOW-COST WIRE ANTENNAS FOR RADIO AMATEURS, by William I. Orr W6SAI and Stuart D. Cowan, W2LX: 192 pages. $11.95 plus shipping

Now—another great handbook joins the famous Cubical Quad and Beam Antenna handbooks. Provides complete instructions for building tested wire antennas from 2 through 160 meters— horizontal, vertical, multiband traps, and beam antennas. Describes a 3-band Novice dipole with only one feedline; the "folded Marconi" antenna for 40, 80, or 160 meters; "invisible" antennas for difficult locations—hidden, disguised, and disappearing antennas (the Dick Tracy Special, the CIA Special). Covers antenna tuners and baluns, and gives clear explanations of radiation resistance, impedance, radials, ground systems, and lightning protection. This is a truly practical handbook.

THE TRUTH ABOUT CB ANTENNAS, by William I. Orr W6SAI and Stuart D. Cowan W2LX; 240 pages. $11.95 plus shipping

Contains everything the CBer needs to know to buy or build, install, and adjust efficient CB antennas for strong, reliable signals. A unique "Truth Table" shows the dB gain from 10 of the most popular CB antennas. The antenna is the key to clear, reliable communication but most CB antennas do not work near peak efficiency. Now, for the first time, this handbook gives clear, informative instructions on antenna adjustment, exposes false claims about inferior antennas, and helps you make your antenna work. With exclusive and complete coverage of the "Monster Quad" beam, the "King" of CB antennas.

INTERFERENCE HANDBOOK, by William R. Nelson WA6FQG; Editor: William I. Orr W6SAI; 253 pages. $11.95 plus shipping

This timely book covers every radio frequency interference (RFI) problem, with solutions based on years of practical experience. Covers amateur radio, CB radio, and power line problems with proven solutions. Contains case histories and lists, valuable tips for stereo and TV owners to cure interference. Covers mobile, tele- phone, CATV, and computer problems as well.

ALL ABOUT CUBICAL QUAD ANTENNAS, by William I.Orr W6SAI and Stuart D. Cowan W2LX; 112 pages. $9.95 plus shipping

This well-known classic has been updated to include: new Quad designs, new dimension charts for every type of Quad from 6 to 80 meters; additional gain figures; an analysis of Quad vs. Yagi; Mini and Monster Quad designs; Delta, Swiss, and Birdcage Quads; and an improved Tri-Gama match to feed a triband Quad efficiently with one transmission line. Also covered are feed systems and tuning procedures for maximum gain and minimum SWR. Much of this data has never before been published.

New!

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10 METER BEACONS

FREQ.	CALL	OPERATION	LOCATION	NOTES
28.175	VE3TEN	C	Ottawa, Ontario, Canada	10W, ground plane
28.191	VE6YF		Edmonton, AB, Canada	10W
28.195	1Y4M		Bologna, Italy	20W, 5/8 ground plane
28.200	GB3SX	C	Crowborough, England, U.K.	8W, dipole
28.201	LU8ED		Buenos Aires, Argentina	5W
28.202	KE5GY	I	Arlington, Texas, USA	5W, vertical
28.2025	ZS5VHF		Natal, Rep. of South Africa	5W, ground plane
28.204	DLØIGI	C	Mt. Predigtstuhl, West Germany	100W, vertical dipole
28.205	KA3OEM		Meadville, Pennsylvania, USA	27W, Yagi west
28.206	KJ4X		Pickens, South Carolina, USA	2W, vertical
28.2075	W8FKL	C	Venice, Florida, USA	10W, vertical
28.208	WA1IOB	C	Marlborough, Massachusetts, USA	75W, vertical
28.209	NX2O		Staten Is., New York, USA	10W, ground plane
28.210	3B8MS	C	Mauritius	ground plane
28.210	K4KMZ	I	Elizabethtown, Kentucky, USA	20W, vertical
28.210	KC4DPC	C	Wilmington, North Carolina, USA	4W, dipole
28.212	EA6RCM		Palma de Mallorca, Spain	4W, 5 el NNE
28.2125	ZD9GI	C	Gough Is., South Atlantic	ground plane
28.216	GB3RAL	C	Slough, Berkshire, U.K.	20W, ground plane
28.2175	W8UR		Mackinac Is., Michigan, USA	1/2 W, ground plane
28.2175	WB9VMY	C	Calumet, Oklahoma, USA	2W, dipole
28.2195	LU4XS		Tierra del Fuego, Argentina	
28.220	5B4CY	C	Zyyi, Cyprus	26W, ground plane
28.221	PY2GOB		Sao Paulo, Brazil	15W, vertical
28.222	W9UXO	C	Lake Bluff, Illinois, USA	10W, ground plane
28.2225	HG2BHA	C	Tapolca, Hungary	10W, ground plane
28.225	PY2AMI	C	Sao Paulo, Brazil	5W, dipole
28.225	N6TWX	I	Grass Valley, California, USA	30W, 3 el Yagi
28.225	KW7Y		Marysville, Washington, USA	4W, vertical
28.2275	EA6AU	C	Mallorca, Balearic Is., Spain	10W, 5/8 ground plane
28.230	ZL2MHF	C	Mt. Climie, New Zealand	50W, vertical dipole
28.232	W7JPI	C	Sonoita, Arizona, USA	5W, 3 el Yagi NE
28.233	KD4EC	C	Jupiter, Florida, USA	7W, ground plane
28.235	VP9BA	C	Hamilton, Bermuda	10W, ground plane
28.2375	LA5TEN	C	Oslo, Norway	10W, 5/8 ground plane
28.2405	5Z4ERR	C	Kiambu, Kenya	
28.245	A92C		Bahrain	dipole, NW/SE
28.2455	ZS1CTB	C	Capetown, Rep. of South Africa	20W, 1/4 vertical
28.2475	EA2HB	I	San Sebastian, Spain	6W, ground plane
28.248	K1BZ	C	Belfast, Maine, USA	5W, vertical dipole
28.2495	EA3JA		Barcelona, Spain	
28.250	W3SV	C	Elverson, Pennsylvania, USA	10W, vertical
28.250	KØHTF	C	Des Moines, Iowa, USA	2W, ground plane
28.250	Z21ANB	C	Bulawayo, Zimbabwe	15W, ground plane
28.2505	4N3ZHK		Yugoslavia	1W, vertical
28.252	WB4JHS	I	Florissant, Missouri, USA	7W, vertical
28.252	WJ7X	C	Bellevue, Washington, USA	5W, vertical
28.2525	OH2TEN		Finland	
28.255	LU1UG		Gral Pico, Argentina	5W, ground plane
28.2575	DKØTEN	C	Konstanz, West Germany	40W, ground plane
28.259	WB9FVR	C	Pembroke Pines, Florida, USA	1W, dipole
28.260	VK5WI	C	Adelaide, SA, Australia	10W, ground plane
28.262	VK2RSY	C	Sydney, NSW, Australia	25W, ground plane
28.264	VK6RWA	C	Perth, WA, Australia	
28.266	VK6RTW	C	Albany, WA, Australia	
28.266	KB4UPI	C	Birmingham, Alabama, USA	20W, 1/4 vertical
28.2685	W9KFO	I	Eaton, Indiana, USA	0.75W, vertical
28.270	ZS6PW	C	Pretoria, Rep. of South Africa	10W, 3 el Yagi
28.270	VK4RTL	C	Townsville, QLD, Australia	
28.2725	9L1FTN	I	Freetown, Sierra Leone	10W, vertical dipole
28.2745	ZS1LA	C	Stillbay, Rep. of South Africa	20W, 3 el Yagi NW
28.275	AL7GQ	C	Denver, Colorado, USA	1W, loop
28.2755	N6RDX	I	Stockton, California, USA	20W, 3 el Yagi
28.277	DFØAAB	C	Kiel, West Germany	10W, ground plane
28.280	LU8EB		Buenos Aires, Argentina	5W
28.282	VE1MUF	C	Fredrickton, NB, Canada	0.5W, dipole
28.282	VE2HOT		Beaconsfield, PQ, Canada	5W, vertical dipole
28.284	VP8ADE	C	Adelaide Is., Antarctica	8W, vert. beam to G-land
28.286	KE2DI		Rochester, New York, USA	2W, vertical dipole
28.286	KK4M	C	Las Vegas, Nevada, USA	5W, vertical
28.287	W8OMV		Asheville, North Carolina, USA	5W, ground plane
28.287	H44SI	C	Honaria, Solomon Is.	15W
28.288	W2NZH	I	Moorestown, New Jersey, USA	3W, ground plane
28.290	SK5TEN		Sweden	
28.290	VS6TEN	C	Mt. Matilda, Hong Kong	10W, vertical
28.292	ZD8HF		Ascension Island	
28.2925	LU2FFV		San Jorge, Argentina	5W, ground plane
28.295	WC8E	I	Cincinnati, Ohio, USA	10W, vertical
28.296	W3VD	C	Laurel, Maryland, USA	1.5W, vertical dipole
28.297	WA4DJS	I	Ft. Lauderdale, Florida, USA	30W, ground plane
28.301	KF4MS	C	St. Petersburg, Florida, USA	5W
28.3025	PT7AAC		Fortaleza, Brazil	5W, ground plane
28.306	PT8AA		Rio Branco, Brazil	5W, ground plane
28.315	ZS6DN	C	Irene, Rep. of South Africa	100W, vertical
28.888	W6IRT		N. Hollywood, California, USA	5W, ground plane
28.992	DLØANN		Nuernberg, West Germany	20MW, delta loop

Send any additions, corrections, or deletions to Joe Gumino – K2OLG, 303 Old Stage Road, Spotswood, NJ 08884, USA.

USSR OBLAST LIST

The USSR is divided into 184 administrative regions called oblasts, similar to states in the United States. The oblast location of an amateur station can, in most cases, be determined from its call:

1. Letter - letter identifier: For all Soviet republics other than the Russian SFSR, it is the letter before the number and the first letter after the number which identify the oblast. UH8EA is in oblast 44 (as identified by the H-E in the call).

2. Number - letter identifier: For the Russian SFSR (European and Asiatic UA, RA, UV, RV, UW, RW, UZ and RZ prefixes), it is the number and the first letter after the number which identify the oblast. RA2F88 is in oblast 125 (as identified by the 2F in the call). The RSFSR also includes the older UN1 series (oblast 88).

3. Club calls may be identified by a W, X, Y, or Z as the second letter following the number.

4. USSR prefixes may begin with U or R.

5. Calls issued before 1971 may not follow this pattern.

The Central Radio Club, Box 88, Moscow USSR, issues the R-100-0 award for confirmed contacts or confirmed SWL reports from 100 different oblasts. There is also a special award for collecting cards from all current oblasts. Refer to an awards manual, such as RSGB's "Amateur Radio Awards", for further details.

			WORKED	CONF'D
UA1A	169	LENINGRAD		
UA1C	136	LENINGRADSKAYA		
UA1N	88	KARELIAN		
UA1O	113	ARKANGELSKAYA		
UA1P	114	NENETSKIY		
UA1Q	120	VOLOGODSKAYA		
UA1T	144	NOVGORODSKAYA		
UA1W	149	PSKOVSKAYA		
UA1Z	143	MURMANSKAYA		
UA2F	125	KALININGRADSKAYA		
UA3A	170	MOSCOW		
UA3B	170	MOSCOW		
UA3D	142	MOSCOWSKAYA		
UA3E	147	ORLOVSKAYA		
UA3G	137	LIPECKAYA		
UA3I	126	KALININSKAYA		
UA3L	155	SMOLENSKAYA		
UA3M	168	YAROSLAVSKAYA		
UA3N	132	KOSTROMSKAYA		
UA3P	160	TULSKAYA		
UA3Q	121	VORONEJSKAY		
UA3R	157	TAMBOVSKAYA		
UA3S	151	RIASANSKAYA		
UA3T	122	GORKOVSKAYA		
UA3U	123	IVANOVSKAYA		
UA3V	119	VLADIMIRSKAYA		
UA3W	135	KURSKAYA		
UA3X	127	KALUJSKAYA		
UA3Y	118	BRIANSKAYA		
UA3Z	117	BELGORODSKAYA		
UA4A	156	VOLGRADSKAYA		
UA4C	152	SARATOVSKAYA		
UA4F	148	PENZENSKAYA		
UA4H	133	KUIBISHEVSKAYA		
UA4L	164	ULIANOVSKAYA		
UA4N	131	KIROVSKAYA		
UA4P	94	TATAR		
UA4S	91	MARI		
UA4U	92	MORDOVIAN		
UA4W	95	UDMURT		
UA4Y	97	CHUVASH		
UA6A	101	KRASNODAR		
UA6B	101	KRASNODAR		
UA6E	109	KARACHAI-CHERKESS		
UA6H	108	STAVROPOL		
UA6I	89	KALYMK		
UA6J	93	NORTH OSSETIA		
UA6L	150	ROSTOVSKAYA		
UA6P	96	CHECHENO-INGUSH		
UA6U	115	ASTRAKHANSKAYA		
UA6W	86	DAGHESTAN		
UA6X	87	KABARDINO-BALKARSK		
UA6Y	102	ADIGEI AUT		
UA8T	174	UST. ORDYNSKY BURIATSKY		
UA8V	175	AGINSKY BURIATSKY		
UA9A	165	CHELIABINSKAYA		
UA9C	154	SVERDLOVSKAYA		
UA9F	140	PERMSKAYA		
UA9G	141	KOMI PERMYATSKY		
UA9H	158	TOMSKAYA		
UA9J	162	KHANTY MENSYJSKY		
UA9K	163	YAMALO NENETSKY		
UA9L	161	TIUMENSKAYA		
UA9M	146	OMSKAYA		
UA9O	145	NOVOSIBIRSKAYA		
UA9Q	134	KURGANSKAYA		
UA9S	167	ORENBURGSKAYA		
UA9U	130	KEMEROVSKAYA		
UA9W	84	BASHKIR		
UA9X	90	KOMI		
UA9Y	99	ALTAI		
UA9Z	100	GORNO - ALTAI AUT		
UAØA	103	KRASNOYARSK		
UAØB	105	TAJMYRSKY		
UAØC	110	KHABAROVSK		
UAØD	111	YEVREISK		
UAØF	153	SAKHALINSKAYA		
UAØH	106	EVENKIYSKY		
UAØI	138	MAGADANSKAYA		
UAØJ	112	AMURSKAYA		
UAØK	139	CHUKOTSKIY		
UAØL	107	PRIMORYE		
UAØO	85	BURYAT		
UAØQ	98	YAKUT		
UAØS	124	IRKUTSKAYA		
UAØU	166	CHITINSKAYA		
UAØW	104	KHAKASS AUT		
UAØX	129	KORYAKSKY		
UAØY	159	TUVA		
UAØZ	128	KAMCHATSKAYA		
UB-A	75	SUMSKAYA		
UB-B	76	TERNOPOLSKAYA		
UB-C	80	CHERKASSKAYA		
UB-D	63	ZAKARPATSKAYA		
UB-E	60	DNEPROPETROVSKAYA		
UB-F	70	ODESSKAYA		
UB-G	78	HERSONSKAYA		
UB-H	71	POLTAVSKAYA		
UB-I	73	DONECKAYA		
UB-J	67	CRIMSKAYA		
UB-K	72	ROVENSKAYA		
UB-L	77	KARKOVSKAYA		
UB-M	59	VOROSHILOVGRADSKAYA		
UB-N	57	VINNICKAYAYA		
UB-P	58	VOLINSKAYA		
UB-Q	64	ZAPOROJSKAYA		
UB-R	81	CHERNIGOVSKAYA		
UB-S	74	IVANO-FRANKOVSKAYA		
UB-T	79	HMELNICKAYA		
UB-U	65	KIEVSKAYA		
UB-V	66	KIROVGRADSKAYA		
UB-W	68	LVOVSKAYA		
UB-X	62	ZHITOMIRSKAYA		
UB-Y	82	CHERNOVICKAYA		
UB-Z	69	NIKOLAEVSKAYA		
UC-A	188	MINSK CITY		
UC-C	9	MINSKAYA		
UC-I	8	GRODNENSKAYA		
UC-L	5	BRESTSKAYA		
UC-O	7	GOMELSKAYA		
UC-S	10	MOGILEVSKAYA		
UC-W	6	VIETEBSKAYA		
UD-D	1	AZERBAIJAN		
UD-K	3	GORNO-KARABAKH		
UD-N	2	NAKHICHEVAN		
UF-F	12	GEORGIA		
UF-O	15	SOUTH OSSETIA		
UF-Q	14	ADJAR		
UF-V	13	ABKHAZIAN		
UG-G	4	ARMENIA		
UH-A	191	ASHKHABAD CITY		
UH-B	180	NEBIT DAG		
UH-E	44	MARYISKAYA		
UH-H	43	TURKOMAN		
UH-W	45	TASHAUZSKAYA		
UH-Y	46	CHARDJOUSKAYA		
UI-A	189	TASHKENT CITY		
UI-B	53	TASHKENTSKAYA		
UI-C	49	KASHKADARSKAYA		
UI-D	173	SYRDARINSKAYA		
UI-F	47	ANDIJANSKAYA		
UI-G	54	FERGANSKAYA		
UI-I	51	SAMARKANDSKAYA		
UI-L	48	BUKHARSKAYA		
UI-O	50	NAMANGAN		
UI-Q	185	NAVOYASKAYA		
UI-T	52	SURKHAM DARINSKAYA		
UI-U	55	KHOREZMSKAYA		
UI-V	181	DZHIZAKSKAYA		
UI-Z	56	KARA-KALPAK		
UJ-J	40	TADZHIK		
UJ-K	182	KULYABSKAYA		
UJ-R	42	GORNO-BADAKHSTAN		
UJ-S	41	LENINABAD		
UJ-X	183	KURGAN-TYUBINSKAYA		
UL-A	179	MANGISHLAKSKAYA		
UL-B	16	CELINOGRADSKAYA		
UL-C	28	NORTH KAZAKHSTANSKAYA		
UL-D	29	SEMIPALATINSKAYA		
UL-E	25	KOKCHETAVASKAYA		
UL-F	27	PAVOLDARSKAYA		
UL-G	190	ALMA ATA CITY		
UL-I	17	AKTUBINSKAYA		
UL-J	19	EAST KAZAKHSTANSKAYA		
UL-K	24	KIZIL-ORDINSKAYA		
UL-L	26	KUSTANAYSKAYA		
UL-M	22	URALSKAYA		
UL-N	31	CHIMKENTSKAYA		
UL-O	20	GURIEVSKAYA		
UL-P	23	KARAGANDINSKAYA		
UL-Q	18	ALMA-ATINSKAYA		
UL-R	178	DZHEZKAZGANSKAYA		
UL-T	21	JAMBULSKAYA		
UL-V	30	TALDY-KURGANSKAYA		
UL-Y	176	TURGAY		
UM-M	36	KIRGHIZ		
UM-N	34	OSHKAYA		
UM-P	177	NARYNSKY		
UM-Q	33	ISSYK-KUL-PRZHEVALSK		
UM-T	184	TALASSKAYA		
UO-O	39	MOLDAVIA		
UP-B	38	LITHUANIA		
UP-P	38	LITHUANIA		
UQ-G	37	LATVIA		
UR-R	83	ESTONIA		
UT-J	187	SEVASTOPOL CITY		
UT-U	186	KIEV CITY		

6 METER BEACONS

This list has been prepared by Harry Schools KA3B and Ray Clark K5ZMS for SMIRK, the Six Meter International Radio Klub. Please send all update information and Klub membership inquiries to K5ZMS.
I = Intermittent beacon. C = Continuous beacon.

FREQ.	CALL	OPERATION	LOCATION	GRID	NOTES
35.810	VK6RO	I	Western Australia		3W, 6 el Yagi
41.750	VK6RO	I	Western Australia		8W, 6 el Yagi
45.250	Ch. 1	I	New Zealand TV video		
46.250	Ch. 0	I	Australian TV video		
48.250	Ch. E2	I	European/African TV video		
49.750	Ch. RI	I	European/Asian TV video		
50.000	CE3BXK	I	Santiago, Chile		
50.000	GB3BUX	C	Sheffield Univ., Buxton, England	IO93BF	15W, Turnstile
50.005	ZS2SIX	C	Rep. of South Africa	KF25	25W, dipole N/S
50.005	H44HIR		Honaria, Solomon Islands	QI00	
50.007.2	KØGUV	C	Park Rapids, Minnesota, USA	EN26	8W, Halo 35'
50.010	VE7SIX	C	Kaleden, BC, Canada	DN09	130W, Swiss Quad
50.010	JA2IGY	C	Mie (near Nagoya), Japan	PM84	10W, ground plane
50.013	P29BPL	C	Port Moresby, Papua New Guinea	QI30	30W, dipole
50.015	SZ2DH	I	Athens, Greece	KM18MM	10W, 5 el Yagi
50.015	PJ4B	C	Bonaire, Netherlands Antilles		
50.017	JE6ZIH	C	Miyazaki, Japan	PM51	10W, 2X/Squalo
50.018	ZS3VHF	C	Rep. of South Africa	JG87	50W, ground plane
50.020	GB3SIX	C	Anglesey, England	IO73TJ	25W, 3 el Yagi
50.020	CX1CCC	C	Uruguay	GF15	5W, ground plane
50.025	6Y5RC	C	Kingston, Jamaica	FK17MX	40W, 3 el Yagi
50.026.5	ZS6PW	I	Rep. of South Africa	KG44	
50.028	JA7ZMA	C	Fukushima, Japan	QM07	10W, 6 el Yagi
50.030	CTØWW	C	Joao Pesdueira, Portugal	IN61GE	40W, dipole
50.032.5	ZD8VHF	C	Ascension Island	II22	50W, JVL vertical
50.033	LU8YYO	C	Argentina		
50.035	ZB2VFH	C	Gibraltar		
50.035	ZS3VHF	C	Rep. of South Africa		60W, vertical
50.039	FY7THF	C	Kourou, French Guyana	GJ35	100W, ground plane
50.040	CX8BE	I	Montevideo, Uruguay	GF15	10W, 4 el Yagi
50.040	SV1SIX		Greece		
50.045	YV5/DL3ZM	C	Caracas, Venezuela	FK60	10W, 6 el Yagi
50.045	OX3VHF	C	Simiutaq, Greenland	GP60QQ	20W, ground plane
50.050	GB3NHQ	C	Potters Bar, England	IO91VQ	15W, dipoles
50.050	ZS6DN	C	Irene, Rep. of South Africa	KG44	
50.055	ZS6LN	I	Rep. of South Africa	KG46	
52.056	VK8VF	C	Darwin, Australia	PH57	20W, horizontal
50.057.5	TF3SIX	C	Iceland	HP94CC	50W, vertical
50.060	GB3RMK	C	Rosemarkie, England	IO77UO	20W, dipole
50.060	K4TQR	C	Birmingham, Alabama, USA	EM63OM	1W, dipole 60'
50.060	WA8ONQ	C	Middletown, Ohio, USA	EM79TM	2W, Turnstile 50'
50.060	W5VAS	C	Slidell, Louisiana, USA	EM5O	0.5W, vertical 310
50.060.2	PY2AA	C	Sao Paulo, Brazil	GG66QK	25W, ground plane
50.061	K1NFE	C	Burlington, Connecticut, USA	FN31MS	15W, Turnstile 70'
50.062	W3VD	C	Laurel, Maryland, USA	FM19NC	10W, vertical 40'
50.062.5	GB3NGI	C	Londonderry, England	IO65	18W, dipole
50.063	N4PZ	C	Sarasota, Florida, USA	EL87SF	0.4W, whip 70'
50.063	K6MYC	I	Kona, Hawaii, USA	BK29	10W, M sq. Yagi
50.064	WD7Z	C	Yucca, Arizona, USA	DM24MV	75W, Squalo 60'
50.065	WA1OJB	C	Bowdoin, Maine, USA	FN54	13W, J-pole 15'
50.065	NB3O/1	C	Rhode Island, USA	FN41	100W, 5 el Yagi
50.065	W9KFO	C	Eaton, Indiana, USA	EN70HH	1.5W
50.065	KAØCDN	C	Aurora, Colorado, USA	DM79PS	20W, Halo 30'
50.065	WØIJR	C	Aurora, Colorado, USA	DM79PS	20W, Halo 30'
50.065	KL7WE	I	Anchorage, Alaska, USA	BP51	1.5W, 3 el Yagi
50.065.5	GB4HXJ	C	St. Helier, England	IN89	10W, Halo
50.066	VK6RPR	C	Perth, Australia	OF78	20W, horizontal
50.067	WB8IGY	I	Loveland, Ohio, USA	EM79UG	2W, vertical 100'
50.067	N7DB	I	Boring, Oregon, USA	CN85TM	10W, Halo 30'
50.067		C	Brazzaville, Congo AM Station		
50.068	W7US	C	Tucson, Arizona, USA		
50.068.5	W4RFR	C	Nashville, Tennessee, USA	EM66WA	2W
50.069	W4HHK	C	Collierville, Tennessee, USA	EM55HA	1W, dipole 30'
50.069	K6FV	C	Woodside, California, USA	CM87UL	100W, various 30'
50.070	WØBJ	C	North Platte, Nebraska, USA	DN91NC	5W, Turnstile 12'

6 METER BEACONS

FREQ.	CALL	OPERATION	LOCATION	GRID	NOTES
50.070	KA4VEY	C	Harvest, Alabama, USA	EM64VV	10W, vertical
50.070	KB4UPI	C	Birmingham, Alabama, USA	EM63OM	4W, dipole 25'
50.070	KØHTF	C	Des Moines, Iowa, USA	EN31KC	3W, inverted V
50.070	N4LTA	C	Spartanburg, S.Carolina, USA	EM94AX	10W, Halo 50'
50.070	WA7ECY	C	Troutdale, Oregon, USA	CN85SM	10W, Squalo 30'
50.070	WBØCGH	C	Lewisville, Texas, USA	EM13MC	1.5W, Halo 180'
50.070	WB4GJG	I	Danville, Virginia, USA	FM06HM	1W, Ringo 70'
50.071	WØVD	C	Joplin, Missouri, USA	EM27VD	12W, dipole 20'
50.072	WA2YTM	C	Canandaigua, New York, USA	FN12IT	15W, Turnstile
50.072	KW2T	C	Palmyra, New York, USA	FN13	0.25W, Squalo 30'
50.074	WB5DSH	C	Oklahoma City, Oklahoma, USA	EM15FL	30W, Halo 40'
50.075	K7IHZ	I	Mesa, Arizona, USA	DM43BM	20W, Squalo
50.075	PY2AMI	C	Americana, Brazil	GG67IF	10W, ground plane
50.075	KP4EKG	I	Bayamon, Puerto Rico, USA	FK68	10W, vertical 35'
50.075	VS6SIX	C	Hong Kong	OL72	30W, ground plane
50.077	NØLL	C	Smith Center, Kansas, USA	EM09OS	21W, 2 Halos 30'
50.077	N5JM	I	New Orleans, Louisiana, USA	EL49XW	3W, vertical 50'
50.077.5	TI2NA	C	San Jose, Costa Rica	EK70	20W, dipole
50.079	W6SKC/7	C	Nogales, Arizona, USA	DM41ML	5-80W,horizntal 15'
50.080	KH6JJK	I	Honolulu, Hawaii, USA	BL11CI	5W, 3 el Yagi
50.080	WB4OOJ	C	Tampa, Florida, USA	EL87SU	10W, vertical 25'
50.080	W1AW	I	ARRL, Newington, CT, USA	FN31PQ	50W, 6 el Yagi 60'
50.082	HC8SIX	C	Galapagos Islands	EI59	4W, vertical
50.085	9H1SIX	C	Malta	JM75FV	25W, 5 el Yagi
50.086	LU1MA	C	Mendoza, Argentina	FF57	10W, 2 el Quad
50.086	K7NV	I	Pahrump, Nevada, USA	DM16	
50.086	VE2STL	C	Val Belair, Quebec, Canada	FN46	1.5W, dipole
50.086	VP2MO	I	Plymouth, Montserrat	FK86	10W, 6 el Yagi 50'
50.090	KJ6BZ	C	Jonnston Island	AK56	10W, 6 el Yagi
50.092	W5GTP	I	New Iberia, Louisiana	EM40CA	30W, 3 el Yagi 30'
50.100	HC2FG	C	Guayaquil, Ecuador	FI07	8W, J-pole
50.100	VP5D	C	Turks & Caicos Islands	FL31	6W, AR6 Ringo 60'
50.100	KG6DX	I	Latte Heights, Guam	QK23	40W, 3 el Yagi
50.110	JA2IGY	C	Mie (near Nagoya), Japan	PM84	10W, ground plane
50.110	A61XL	I	United Arab Emirates	LL74	50W, 6 el Yagi
50.120	4S7EA	I	Sri Lanka	MJ97	50W, 6 el Yagi
50.321	ZS5SIX	C	Pietermaritzburg, RSA	KG50	10W, Halo
50.490	JG1ZGW	C	Tokyo, Japan	PM95	10W, dipole
50.500	5B4CY	C	Zyghi, Cyprus	KM64HT	15W, ground plane
50.740	Ch.1 Audio	I	Auckland, New Zealand	WBFM	
50.750	Ch.1 Audio	I	Kaukapunake, New Zealand	WBFM	
50.760	Ch.1 Audio	I	Waukapunake, New Zealand	WBFM	
50.904	ZS1STB	C	Republic of South Africa	KF05	25W, ground plane
51.020	ZL1UHF	C	Auckland, New Zealand	RF73	25W, dipole
51.030	ZL2MHB	C	Napier, New Zealand	RF80	10W, vertical
51.225	ZL2VHTC		Inglewood, New Zealand	RF70	30W
51.670	Ch.0 Audio	I	Brisbane, Qld, Australia		FM
51.740	Ch.0 Audio	I	Wagga, NSW, Australia		FM
51.760	Ch.0 Audio	I	Melbourne, Vic, Australia		FM
51.910	Ch.0 Audio	I	Brisbane, Qld, Australia		
52.100	ZK2SIX	C	Niue	AH50	
52.200	VK8VF	C	Darwin, Australia	PH57	20W, horizontal
52.250	ZL2VHM	C	Manawatu, New Zealand	RE79	8W
52.310	ZL3MHF	C	Christchurch, New Zealand	RE66	50W, vertical
52.320	VK6RTT	C	Wickham, Australia	OG89	25W, J-pole
52.325	VK2RHV	C	Newcastle, Australia	QF57	20W, horizontal
52.330	VK3RGG	C	Geelong, Australia	QF21	10W, horizontal
52.345	VK4ABP	C	Longreach, Australia	QG26	10W, vertical
52.370	VK7RST	C	Hobart, Australia	QE37	20W, horizontal
52.420	VK2RSY	C	Sydney, Australia	QF56	25W, Turnstile
52.425	VK2RGB	C	Gunnedah, Australia	QF59	5W, horizontal
52.440	VK4RTL	C	Townsville, Australia	QH30	10W, 1/4 vertical
52.450	VK5VF	C	Adelaide, Australia	PF95	30W, Turnstile
52.460	VK6RPH	C	Perth, Australia	OF78	20W, horizontal
52.465	VK6RTW	C	Albany, Australia	OF84	10W, horizontal
52.470	VK7RNT	C	Launceston, Australia	QE38	10W, horizontal
52.485	VK8RAS	C	Alice Springs, Australia	PG66	25W, horizontal
52.490	ZL2SIX	C	Blenheim, New Zealand	RE68	10W, vertical
52.510	ZL2MHF	C	Upper Hut, New Zealand	RE78	4W, vertical

CENSUS OF AMATEUR RADIO LICENSES* in the U.S.A.

by classes, within states and call areas

Call Area	State	Novice	Technician	General	Advanced	Extra	Club	Military	State Totals	Percent of Licenses
1	CT	1,687	1,451	1,826	1,431	864	49	2	7,310	1.48%
	MA	2,170	2,974	3,205	2,494	1,585	78	3	12,509	2.53
	ME	542	562	909	575	330	10	1	2,929	.59
	NH	576	834	863	623	480	12	1	3,389	.69
	RI	377	506	499	306	231	19	1	1,939	.39
	VT	219	297	374	272	170	8		1,340	.27
		5,571	6,624	7,676	5,701	3,660	176	8	29,416	5.95%
2	GU	173	51	39	40	22			325	.07
	NJ	2,534	3,365	3,303	3,117	1,730	146	4	14,199	2.87
	NY	6,679	6,491	6,564	5,533	2,979	165	16	28,427	5.75
	VI	47	55	66	49	26			243	.05
		9,433	9,962	9,972	8,739	4,757	311	20	43,194	8.74%
3	DC	82	63	126	101	73	3	3	451	.09
	DE	212	291	266	220	155	4	1	1,149	.23
	MD	1,492	1,990	2,091	2,087	1,160	52	9	8,881	1.80
	PA	3,692	4,576	4,774	4,030	2,292	114	14	19,492	3.94
		5,478	6,920	7,257	6,438	3,680	173	27	29,973	6.06%
4	AL	1,116	1,976	1,611	1,458	795	22	2	6,980	1.41
	FL	6,141	6,996	7,889	6,736	3,031	66	3	30,862	6.25
	GA	1,473	2,671	2,308	2,150	1,116	36	3	9,757	1.97
	KY	1,194	1,456	1,311	1,025	552	18	2	5,558	1.12
	NC	1,806	2,775	2,646	2,468	1,177	35	4	10,911	2.21
	PR	3,310	1,879	588	459	205	3	1	6,445	1.30
	SC	695	1,101	1,208	901	462	56	2	4,425	.90
	TN	1,510	2,755	1,982	2,008	953	35	3	9,246	1.87
	VA	1,937	2,634	2,870	2,635	1,459	31	4	11,570	2.35
		19,182	24,243	22,413	19,840	9,750	302	24	95,754	19.38%
5	AR	615	1,052	917	856	418	14	1	3,873	.78
	LA	908	1,283	1,368	1,260	621	24	3	5,467	1.11
	MS	551	767	796	693	335	8	2	3,152	.64
	NM	400	741	804	793	436	10		3,184	.64
	OK	1,083	1,695	1,363	1,354	627	25	1	6,148	1.24
	TX	4,520	7,618	7,078	6,619	3,447	96	7	29,385	5.95
		8,077	13,156	12,326	11,575	5,884	177	14	51,209	10.36%
6	CA	14,376	20,392	15,700	14,784	6,496	331	80	72,159	14.60
	HI	639	615	561	490	254	12	4	2,575	.52
	TT	2		3	4	6	1	13	29	.01
		15,017	21,007	16,264	15,278	6,756	344	97	74,763	15.13%
7	AK	413	456	589	494	249	8	5	2,214	.45
	AZ	1,217	2,616	2,296	2,152	988	17	1	9,287	1.88
	ID	405	575	648	491	228	9		2,356	.48
	MT	360	342	546	382	211	12		1,853	.37
	NV	357	632	690	508	279	10		2,476	.50
	OR	1,669	2,146	2,354	1,852	881	28	1	8,931	1.81
	UT	786	1,231	626	667	345	11	2	3,668	.74
	WA	3,109	4,072	3,956	3,212	1,642	49	8	16,048	3.25
	WY	237	243	261	201	131	4		1,077	.22
		8,553	12,313	11,966	9,959	4,954	148	17	47,910	9.69%
8	AS	12	10	3	2			1	28	.01
	MI	2,765	3,871	4,007	3,299	1,672	70	1	15,685	3.17
	OH	4,258	6,917	5,161	4,523	2,295	130	1	23,285	4.71
	WV	926	928	819	610	358	15	2	3,658	.74
		7961	11,716	9,997	8,435	4,327	215	5	42,656	8.63%
9	IL	3,635	4,770	4,683	3,878	2,043	124	13	19,146	3.87
	IN	2,152	3,180	2,597	2,218	1,088	83		11,318	2.29
	WI	1,351	1,630	2,057	1,644	827	38		7,547	1.53
		7,138	9,580	9,337	7,740	3,958	245	13	38,011	7.69%
10	CO	1,287	1,949	1,988	1,807	921	22		7,974	1.61
	IA	1,012	1,087	1,440	1,332	566	33	2	5,472	1.11
	KS	1,037	1,144	1,476	1,049	544	30	1	5,281	1.07
	MN	1,366	1,703	2,176	1,804	879	49	1	7,978	1.61
	MO	1,547	2,059	2,435	1,988	993	48	1	9,071	1.84
	ND	269	244	348	229	113	7		1,210	.24
	NE	525	658	961	738	289	23		3,194	.65
	SD	181	235	336	297	135	10		1,194	.24
		7,224	9,079	11,160	9,244	4,440	222	5	41,374	8.37%
Grand Total		93,634	124,600	118,368	102,949	52,166	2,313	230	494,260	
% of Total licenses		18.94%	25.21%	23.95%	20.83%	10.55%	0.47%	0.05%		

*From the 1991 North American Callbook

CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD*

Prefix	Country	Number of Radio Amateur Licenses Listed
AA-AL	U.S.A. (See K,A,N,W)	
AP-AS	Pakistan	90
A2	Botswana	40
A3	Tonga	82
A4	Oman	56
A5	Bhutan	5
A6	United Arab Emirates	3
A7	Qatar	21
A9	Bahrain	69
BY,BT	China	40
BV	Taiwan	20
CE,XQ	Chile	8,299
CM,CO	Cuba	956
CN	Morocco	199
CP	Bolivia	1,750
CR,CS	Portugal	3,094
CT3	Madeira Is.	145
CU	Azores Is.	209
CV,CX	Uruguay	3,456
C2	Nauru	16
C3	Andorra	459
C5	The Gambia	20
C6	Bahama Is.	64
DA-DP	Fed. Rep. of Germany (West)	63,185
DU,DZ	Philippines	4,070
D2,D3	Angola	11
D4	Cape Verde	2
D6	Comoros	16
EA-EH	Spain	41,723
EA6-EH6	Balearic Is.	1,062
EA8-EH8	Canary Is.	2,892
EA9-EH9	Ceuta & Melilla	633
EI,EJ	Ireland	1,573
EJ>	Aran Is.	4
EL,5L	Liberia	116
EP	Iran	31
F	France	13,825
FG	Guadeloupe	103
FH	Mayotte	19
FJ	St. Barthelemy	8
FK	New Caledonia	137
FM	Martinique	104
FO	French Polynesia	318
FP	St. Pierre & Miquelon Is.	19
FR	Reunion Is.	86
FS	St. Martin	
FT	French Antarctica	6
FW	Wallis & Futuna	1
FY	French Guiana	74
G	England	60,770
GD	Isle of Man	184
GI	Northern Ireland	1,402
GJ	Jersey	103
GM	Scotland	3,616
GU	Bailiwick of Guernsey	119
GW	Wales	3,430
HA,HG	Hungary	5,065
HB	Switzerland	4,522
HB>	Liechtenstein	17
HC	Ecuador	2,047
HC8	Galapagos Is.	37
HH	Haiti	143
HI	Dominican Republic	1,952
HJ-HK	Colombia	7,644
HK>	San Andres & Providencia	80
HL	Korea	3,009
HP	Panama	1,330
HR	Honduras	287
HS	Thailand	272
HV	Vatican City	2
HZ	Saudi Arabia	10
H4	Solomon Is.	8
H5	Bophuthatswana	11
I-IZ	Italy	21,333
IA	Tuscan Archipelago	7
IC	Capri & Ischia Is.	35
IM-IS	Sardinia	404
IT	Sicily	1,006
JA-JS	Japan	35,152
JD1	Ogasawara	259
JT	Mongolia	44
JW	Svalbard Is.	46
JX	Jan Mayen Is.	29
JY	Jordan	157
J2	Djibouti	40
J3	Grenada	65
J5	Guinea-Bissau	8
J6	St.Lucia	179
J7	Dominica	80
J8	St. Vincent and the Grenadines	44
K,A,N,W	U.S.A. (48 States)	482,430
KH2	Guam	325
KH6	Hawaii	2,575
KL7	Alaska	2,214
KP4	Puerto Rico	6,445
KH8	American Samoa	28
KP2	U.S. Virgin Is.	243
LA-LN	Norway	5,951
LU-LW	Argentina	31,643
LX	Luxembourg	414
L2	Bulgaria	1,303
N	U.S.A. (See K,A,N,W)	
OA	Peru	2,154
OD	Lebanon	53
OE	Austria	5,893
OH,OI	Finland	4,242
OH>	Aland Is.	45
OK,OL	Czechoslovakia	3,330
ON	Belgium	5,074
OX,XP	Greenland	106
OY	Faroes	119
OZ	Denmark	10,260
PA-PI	Netherlands	17,788
PJ	Netherlands Antilles	89
PP-PY	Brazil	26,956
PY>	Fernando de Noronha Is.	13
PY>	Trindade & Martim Vaz Is.	3
PZ	Surinam	75
P2	Papua New Guinea	129
P4	Aruba	80
R,U,4K	Soviet Union	38,429
SJ-SM	Sweden	12,533
SN-SQ	Poland	7,395
ST,6T,6U	Sudan	10
SU	Egypt	27
SV	Greece, Crete	1,086
S7	Seychelles	26
S8	Transkei	12
S9	Sao Tome & Principe	3
TA-TC	Turkey	157
TF	Iceland	138
TG	Guatemala	542
TI,TE	Costa Rica	1,386
TI9	Cocos Is.	14
TJ	Cameroon	23
TK	Corsica	120
TL	Central African Republic	25
TN	Congo	5
TP	Council of Europe	1
TR	Gabon	33
TT	Chad	5
TU	Ivory Coast	355
TY	Benin	5
TZ	Mali	13
T2	Tuvalu	9
T3	Kiribati	49
T5	Somalia	4
T7	San Marino	50
VE	Canada	27,382
VK	Australia	21,655
VO1	Newfoundland	530
VO2	Labrador	30
VP2	Leeward Is.	207
VP5	Turks & Caicos Is.	62
VP8	British South Atlantic Is.	789
VP9	Bermuda	146
VQ9	Chagos Archipelago	34
VR6	Pitcairn Is.	8
VS6	Hong Kong	334
VU	India	3,139
VY1	Canadian Yukon	70
V2	Antigua and Barbuda	49
V3	Belize	223
V4	St. Kitts and Nevis	58
V5	Namibia	83
V6	Micronesia	26
V8	Brunei	74
W	U.S.A. (See K,A,N,W)	
XE,XF	Mexico	5,604
XT	Burkina-Faso	23
XU	Cambodia	6
XW	Laos	4
XX	Macao	38
XZ	Myanmar	2
YB-YH	Indonesia	6,572
YI	Iraq	1
YJ	Vanuatu	30
YK	Syria	15
YN	Nicaragua	142
YO-YR	Romania	3,799
YS	El Salvador	394
YU,4N	Yugoslavia	6,678
YV,YW	Venezuela	22,209
Y2-Y9	German Dem. Rep.	4,481
ZB2	Gibraltar	53
ZC	Cyprus (Br. Forces)	43
ZD7	St. Helena Is.	11
ZD8	Ascension Is.	45
ZD9	Tristan da Cunha and Gough Is.	14
ZF	Cayman Is.	123
ZK1	Cook Is.	59
ZK2	Niue Is.	11
ZL	New Zealand	6,289
ZP	Paraguay	962
ZR,ZS	Rep. of South Africa	5,093
Z2	Zimbabwe	96
3A	Monaco	56
3B6	Agalega Is.	4
3B7	St. Brandon Is.	4
3B8	Mauritius Is.	43
3B9	Rodriguez Is.	5
3C	Equatorial Guinea	10
3D2	Fiji Is.	77
3DA	Swaziland	48
3V	Tunisia	4
4S	Sri Lanka	128
4U	United Nations	4
4X,4Z	Israel	1,061
5A	Libya	2
5B	Cyprus	577
5H1	Zanzibar (Tanzania)	1
5H3	Tanzania	22
5N	Nigeria	240
5R	Madagascar	6
5T	Mauritania	13
5U	Niger	17
5V	Togo	11
5W	Western Samoa	144
5X	Uganda	6
5Z	Kenya	167
6V,6W	Senegal	160
6Y	Jamaica	168
7J	Japan	139
7P	Lesotho	38
7Q	Malawi	7
7X	Algeria	103
7Z	Saudi Arabia	2
8P	Barbados Is.	258
8Q	Maldive Is.	37
8R	Guyana	20
9G	Ghana	179
9H	Malta	365
9I,9J	Zambia	42
9K	Kuwait	180
9L	Sierra Leone	33
9M2	West Malaysia	238
9M6	Sabah	51
9M8	Sarawak	19
9N	Nepal	4
9Q	Zaire	8
9U	Burundi	2
9V	Singapore	85
9X	Rwanda	35
9Y	Trinidad & Tobago	203

* From the 1991 RADIO AMATEUR CALLBOOKS. Absence of prefix and country indicates either that no licenses have been issued or that the license information could not be obtained from official sources.

CENSUS OF U.S. AMATEURS — BY STATE AND ZIP CODE

This table, compiled from the 1991 North American Callbook, lists the current U.S. amateur radio licenses for each Zip code prefix (the first 3 digits of the Zip code). Zip codes not shown have not been assigned by the U.S. Postal Service.

ALABAMA AL
1.69% of U.S. population

Zip	licenses
350	588
351	432
352	1,037
354	231
355	191
356	564
357	307
358	777
359	395
360	217
361	294
362	292
363	337
364	96
365	341
366	454
367	208
368	216
369	3

ALASKA AK
0.15% of U.S. population

Zip	licenses
995	897
996	425
997	582
998	241
999	69

ARIZONA AZ
0.88% of U.S. population

Zip	licenses
850	1,990
852	2,267
853	1,388
855	249
856	547
857	1,571
859	133
860	269
863	515
864	340
865	18

ARKANSAS AR
0.95% of U.S. population

Zip	licenses
716	157
717	140
718	80
719	352
720	411
721	337
722	379
723	193
724	298
725	172
726	358
727	477
728	211
729	308

CALIFORNIA CA
9.87% of U.S. population

Zip	licenses
900	2,669
902	2,880
903	121
904	327
905	542
906	1,535
907	1,726
908	1,127
910	997
911	433
912	436
913	3,223
914	614
915	307
916	391
917	3,511
918	137
919	1
920	3,683
921	3,003
922	893
923	3,158
924	365
925	808
926	5,281
927	1,233
928	685
930	1,599
931	645
932	951
933	447
934	1,242
935	1,198
936	576
937	599
939	553
940	2,764
941	737
943	380
944	256
945	4,083
946	399
947	327
948	229
949	901
950	2,482
951	1,942
952	612
953	1,108
954	1,199
955	420
956	2,408
957	257
958	1,208
959	1,155
960	760
961	134

COLORADO CO
1.10% of U.S. population

Zip	licenses
800	1,117
801	934
802	1,265
803	490
804	526
805	955
806	183
807	88
808	195
809	908
810	405
811	77
812	193
813	127
814	121
815	226
816	164

CONNECTICUT CT
1.49% of U.S. population

Zip	licenses
060	1,502
061	499
062	327
063	678
064	1,874
065	354
066	268
067	560
068	1,064
069	184

DELAWARE DE
0.27% of U.S. population

Zip	licenses
197	354
198	415
199	380

DIST. OF COLUMBIA DC
0.37% of U.S. population

Zip	licenses
200	392
203	27
205	32

FLORIDA FL
3.40% of U.S. population

Zip	licenses
320	1,438
321	145
322	1,149
323	458
324	482
325	1,425
326	1,397
327	2,143
328	935
329	1,884
330	2,669
331	3,364
332	38
333	1,427
334	2,426
335	2,714
336	868
337	825
338	973
339	1,535
342	713
346	1,092
347	132
349	364

GEORGIA GA
2.27% of U.S. population

Zip	licenses
300	1,923
301	1,126
302	1,577
303	1,044
304	108
305	581
306	355
307	391
308	136
309	251
310	576
312	226
313	101
314	236
315	271
316	122
317	408
318	61
319	164

GUAM GU

Zip	licenses
969	325

HAWAII HI
0.39% of U.S. population

Zip	licenses
967	1,637
968	938

IDAHO ID
0.35% of U.S. population

Zip	licenses
832	236
833	184
834	310
835	128
836	484
837	496
838	518

ILLINOIS IL
5.45% of U.S. population

Zip	licenses
600	3,222
601	2,564
602	120
603	141
604	1,830
605	1,537
606	1,962
609	204
610	537
611	455
612	398
613	283
614	298
615	467
616	312
617	445
618	572
619	172
620	591
622	737
623	280
624	281
625	374
626	282
627	269
628	423
629	380

INDIANA IN
2.55% of U.S. population

Zip	licenses
460	843
461	822
462	1,434
463	1,006
464	148
465	823
466	284
467	699
468	771
469	792
470	173
471	390
472	276
473	758
474	416
475	260
476	259
477	297
478	365
479	502

IOWA IA
1.38% of U.S. population

Zip	licenses
500	362
501	280
502	249
503	423
504	186
505	274
506	260
507	118
508	75
510	135
511	174
512	36
513	126
514	50
515	229
516	69
520	151
521	63
522	227
523	326
524	450
525	242
526	385
527	377
528	205

KANSAS KS
1.11% of U.S. population

Zip	licenses
660	767
661	226
662	705
664	157
665	233
666	331
667	216
668	102
669	70
670	339
671	238
672	727
673	210
674	334
675	233
676	127
677	64
678	168
679	34

KENTUCKY KY
1.58% of U.S. population

Zip	licenses
400	291
401	163
402	1,097
403	366
404	139
405	466
406	48
407	133
408	50
409	79
410	507
411	317
412	64
413	22
414	8
415	119
416	114
417	39
418	37
420	359
421	224
422	127
423	247
424	268
425	76
426	32
427	166

LOUISIANA LA
1.80% of U.S. population

Zip	licenses
700	847
701	505
703	217
704	560
705	457
706	264
707	380
708	598
710	273
711	472
712	405
713	264
714	225

MAINE ME
0.48% of U.S. population

Zip	licenses
039	110
040	720
041	216
042	245
043	238
044	347
045	142
046	261
047	186
048	126
049	338

MARYLAND MD
1.93% of U.S. population

Zip	licenses
206	450
207	1,335
208	1,451
209	647
210	1,366
211	736
212	1,154
214	290
215	189
216	231
217	701
218	219
219	112

MASSACHUSETTS MA
2.77% of U.S. population

Zip	licenses
010	826
011	181
012	367
013	158
014	567
015	666
016	214
017	1,404
018	1,451
019	1,070
020	877
021	2,164
022	22
023	621
024	99
025	322
026	616
027	834

MICHIGAN MI
4.38% of U.S. population

Zip	licenses
480	2,939
481	2,541
482	760
483	198
484	801
485	340
486	722
487	297
488	895
489	231
490	1,475
491	279
492	669
493	450
494	939
495	613
496	459
497	376
498	474
499	227

MINNESOTA MN
1.86% of U.S. population

Zip	licenses
550	699
551	1,250
553	1,063
554	1,808
556	42
557	362
558	286
559	596
560	388
561	128
562	245
563	309
564	233
565	286
566	185
567	98

MISSISSIPPI MS
1.10% of U.S. population

Zip	licenses
386	258
387	99
388	312
389	77
390	186
391	284
392	274
393	203
394	486
395	701
396	92
397	180

MISSOURI MO
2.31% of U.S. population

Zip	licenses
630	1,153
631	1,413
633	563
634	94
635	92
636	143
637	149
638	108
639	109
640	1,057
641	1,015
644	122
645	140
646	87
647	210
648	324
650	193
651	123
652	347
653	171
654	136
655	183
656	374
657	386
658	379

MONTANA MT
0.34% of U.S. population

Zip	licenses
590	154
591	200
592	101
593	123
594	222
595	68
596	143
597	363
598	296
599	183

CENSUS OF U.S. AMATEURS — BY STATE AND ZIP CODE

NEBRASKA NE
0.73% of U.S. population

Zip	licenses
680	337
681	786
683	138
684	129
685	531
686	157
687	205
688	268
689	168
690	75
691	211
692	26
693	163

NEVADA NV
0.24% of U.S. population

Zip	licenses
890	373
891	954
893	15
894	494
895	435
897	153
898	52

NEW HAMPSHIRE NH
0.35% of U.S. population

Zip	licenses
030	1,323
031	294
032	418
033	151
034	207
035	79
036	34
037	163
038	720

NEW JERSEY NJ
3.54% of U.S. population

Zip	licenses
070	2,194
071	154
072	123
073	117
074	1,128
075	129
076	1,059
077	1,299
078	743
079	584
080	2,224
081	219
082	440
083	400
084	64
085	495
086	397
087	789
088	1,431
089	90

NEW MEXICO NM
0.50% of U.S. population

Zip	licenses
870	203
871	1,116
873	31
874	88
875	416
877	30
878	41
879	43
880	565
881	90
882	330
883	208
884	23

NEW YORK NY
8.91% of U.S. population

Zip	licenses
100	894
101	53
102	6
103	1,255
104	506
105	1,027
106	76
107	260
108	100
109	713
110	482
111	113
112	1,198
113	911
114	609
115	1,181
116	104
117	3,193
118	206
119	455
120	720
121	550
122	206
123	454
124	380
125	820
126	217
127	164
128	393
129	315
130	814
131	405
132	467
133	345
134	542
135	144
136	373
137	358
138	421
139	238
140	966
141	478
142	784
143	92
144	711
145	812
146	1,026
147	332
148	663
149	129

NORTH CAROLINA NC
2.50% of U.S. population

Zip	licenses
270	358
271	423
272	798
273	368
274	427
275	827
276	746
277	251
278	472
279	200
280	694
281	724
282	663
283	710
284	414
285	560
286	862
287	996
288	251
289	71

NORTH DAKOTA ND
0.30% of U.S. population

Zip	licenses
580	108
581	172
582	194
583	87
584	100
585	229
586	124
587	169
588	27

OHIO OH
5.23% of U.S. population

Zip	licenses
430	1,189
431	543
432	1,144
433	412
434	324
435	584
436	657
437	360
438	127
439	474
440	1,994
441	2,020
442	1,251
443	533
444	771
445	319
446	859
447	421
448	664
449	268
450	1,235
451	670
452	1,861
453	1,449
454	1,310
455	205
456	574
457	343
458	724

OKLAHOMA OK
1.26% of U.S. population

Zip	licenses
730	1,103
731	1,144
734	121
735	374
736	82
737	240
738	77
739	50
740	921
741	899
743	206
744	294
745	107
746	120
747	98
748	227
749	85

OREGON OR
1.04% of U.S. population

Zip	licenses
970	1,655
971	725
972	1,815
973	1,295
974	1,470
975	819
976	385
977	321
978	412
979	34

PENNSYLVANIA PA
5.74% of U.S. population

Zip	licenses
150	975
151	688
152	1,105
153	255
154	236
155	115
156	526
157	199
158	167
159	230
160	301
161	434
162	108
163	325
164	217
165	336
166	276
167	81
168	297
169	154
170	839
171	212
172	170
173	495
174	264
175	382
176	226
177	262
178	314
179	185
180	716
181	223
182	207
183	217
184	325
185	158
186	307
187	205
188	199
189	805
190	2,424
191	1,172
193	724
194	827
195	258
196	249

PUERTO RICO PR

Zip	licenses
006	3,616
007	1,831
009	998

RHODE ISLAND RI
0.47% of U.S. population

Zip	licenses
028	1,444
029	495

SOUTH CAROLINA SC
1.28% of U.S. population

Zip	licenses
290	328
291	418
292	328
293	382
294	712
295	382
296	1,200
297	330
298	221
299	124

SOUTH DAKOTA SD
0.32% of U.S. population

Zip	licenses
570	242
571	160
572	150
573	119
574	118
575	72
576	26
577	307

TENNESSEE TN
1.94% of U.S. population

Zip	licenses
370	774
371	542
372	575
373	1,087
374	370
375	863
377	691
378	974
379	833
380	321
381	1,287
382	154
383	360
384	163
385	252

TEXAS TX
5.56% of U.S. population

Zip	licenses
750	3,075
751	876
752	1,621
753	19
754	478
755	214
756	489
757	515
758	177
759	282
760	1,852
761	1,383
762	494
763	398
764	110
765	479
766	199
767	232
768	114
769	215
770	2,794
772	84
773	905
774	720
775	1,561
776	505
777	211
778	331
779	277
780	423
781	319
782	1,747
783	247
784	428
785	509
786	663
787	1,108
788	137
789	117
790	313
791	265
792	66
793	181
794	343
795	163
796	257
797	587
798	86
799	752

UTAH UT
0.52% of U.S. population

Zip	licenses
840	1,463
841	971
843	242
844	181
845	111
846	446
847	254

VERMONT VT
0.22% of U.S. population

Zip	licenses
050	155
051	79
052	100
053	65
054	510
056	166
057	159
058	103
059	3

VIRGINIA VA
2.28% of U.S. population

Zip	licenses
220	1,533
221	1,625
222	363
223	506
224	194
225	195
226	262
227	110
228	176
229	319
230	229
231	376
232	667
233	306
234	761
235	334
236	598
237	136
238	222
239	110
240	579
241	340
242	298
243	239
244	253
245	725
246	114

VIRGIN ISLANDS VI

Zip	licenses
008	243

WASHINGTON WA
1.68% of U.S. population

Zip	licenses
980	3,319
981	2,300
982	2,188
983	1,935
984	800
985	1,071
986	1,125
988	410
989	507
990	271
991	380
992	836
993	785
994	34

WEST VIRGINIA WV
0.84% of U.S. population

Zip	licenses
247	148
248	145
249	53
250	115
251	188
252	91
253	239
254	160
255	240
256	182
257	176
258	169
259	96
260	347
261	370
262	152
263	216
264	109
265	282
266	51
267	94
268	35

WISCONSIN WI
2.15% of U.S. population

Zip	licenses
530	864
531	872
532	1,002
534	203
535	544
537	476
538	42
539	238
540	155
541	254
542	201
543	194
544	602
545	236
546	242
547	480
548	267
549	575

WYOMING WY
0.16% of U.S. population

Zip	licenses
820	290
821	4
822	78
823	50
824	76
825	64
826	174
827	68
828	91
829	120
830	26
831	36

APO, FPO (MILITARY)

Zip	licenses
090	150
091	141
092	73
093	14
094	11
095	88
096	57
097	21
098	15
340	107
962	64
963	106
964	6
965	104
966	142
987	87

QSL BUREAUS

A,K,N,W First Call Area, All Calls:
W1 QSL Bureau, Box 216, Forest Park Station,
Springfield, MA 01108, USA

Second Call Area, All Calls
North Jersey DX Assoc., Box 599
Morris Plains, NJ 07950, USA

Third Call Area, All Calls
Cumberland County Amateur Radio Service
Box 448, New Kingstown, PA 17072, USA

Fourth Call Area, All Single Letter Prefixes:
Mecklenburg A.R.S., Box DX
Charlotte, NC 28220, USA

Fourth Call Area, All Two-Letter Prefixes:
Sterling Park Amateur Radio Club,
Call Box 599, Sterling Park, VA 22170, USA

Fifth Call Area, All Calls
W5 QSL Bureau, Box 44246
Oklahoma City, OK 73144, USA

Sixth Call Area, All Calls
Sixth (6th) District DX QSL Bureau
Box 1460, Sun Valley, CA 91352, USA

Seventh Call Area, All Calls
Willamette Valley DX Club Inc.,
Box 555, Portland, OR 97207, USA

Eighth Call Area, All Calls:
QSL Bureau, Box 182165
Columbus, OH 43218, USA

Ninth Call Area, All Calls
Northern Illinois DX Assoc., Box 519,
Elmhurst, IL 60126, USA

Zero Call Area, All Calls.
Zero QSL Bureau, Box 4798,
Overland Park, KS 66204

Puerto Rico, All Calls
P.R. Amateur Radio Club, Box 1061
San Juan, Puerto Rico 00902, USA

U.S. Virgin Islands, All Calls
Virgin Islands Amateur Radio Club,
GPO Box 11360, Charlotte Amalie,
Virgin Islands 00801, USA

Hawaiian Islands, All Calls:
QSL Bureau, Box 788,
Wahiawa, HI 96786, USA

Alaska, All Calls
Alaska QSL Bureau, 4304 Garfield St.,
Anchorage, AK 99503, USA

SWL - Incoming cards only:
Mike Witkowski WDX9JFT, 4206 Nebel Street,
Stevens Point, WI 54481, USA

KA (2x2 except KA6, 2x2)
FEARL QSL Bureau, c/o Sam Fleming,
DOL Sagami Facility,
APO San Francisco 96343, USA
KA6,KR6 (2x2 calls only)
John Nelson, Radio Club of Okinawa,
Box 217, Torii Station,
APO San Francisco 96331, USA
KG4 Guantanamo ARC, Box 73,
FPO New York 09593, USA
KH2,KG6 (Guam only) MARC, Box 445,
Agana, Guam 96910, USA
KH4 QSL Bureau, Box 43,
FPO San Francisco 96614, USA
KH0, KG6 (Saipan only)
Box 7388 Capitol Hill
Saipan, CM 96950, USA
KM6 QSL Bureau, Box 43,
FPO San Francisco 96614, USA

AP Pakistan Amateur Radio Society, QSL Bureau,
Box 65, Lahore, Pakistan
A2 Botswana Amateur Radio Society, QSL Bureau,
Box 1873, Gaborone, Botswana
A3 Amateur Radio Club of Tonga,
Box 1553, Nuku Alofa, Tonga
A4 Royal Omani Amateur Radio Society,
Box 981, Muscat, Oman
A6 QSL Bureau, Box 5708, Dubai,
United Arab Emirates
A9 ARAB QSL Bureau, Box 25425, Awali, Bahrain

BV QSL Bureau, Box 30 547, Taipei, Taiwan

BY1 Chinese Radio Sports Association
Box 6106, Beijing, China
BY4 Chinese Radio Sports Association,
Shanghai Branch, Box 205, Shanghai, China
BY5 Chinese Radio Sports Association,
Fuzhou Branch, Box 730, Fuzhou, China
BY7 Chinese Radio Sports Association,
Changsha Branch, Box 105, Changsha, China
BY8 Chinese Radio Sports Association
Sichuan Branch, Box 607, Chengdu, China
BY9 Chinese Radio Sports Association,
Gangsu Branch, Box 12, Lanzhou, China
BY0 Chinese Radio Sports Association,
Xinjiang Branch, Box 202, Wulumuqi, China

CE,XQ Radio Club de Chile Bureau (IARU member),
Box 13630, Santiago, Chile
or Federacion de Clubes de Radioaficionados
de Chile, Box 72, Valparaiso, Chile
CM1,CO1 QSL Bureau, Box 253, Pinar del Rio 20100, Cuba
CM2,CO2 QSL Bureau, Box 1, Havana 10100, Cuba
CM3,CO3 QSL Bureau, Box 16, Santa Cruz Norte 32900,
P. Havana, Cuba
CM4,CO4 QSL Bureau, Box 1390, Nueva Gerona
Isla de la Juventud 25100, Cuba
CM5,CO5 QSL Bureau, Box 55, Matanzas 40100, Cuba
CM6,CO6 QSL Bureau, Box 785, Santa Clara 50100, Cuba
CM7,CO7 QSL Bureau, Box 52, Camaguey 70100, Cuba
CM8,CO8 QSL Bureau, Box 5, Santiago de Cuba 90100, Cuba CN
ARRAM, Box 299, Rabat, Morocco
CP Radio Club Boliviano, Box 2800,
Cochabamba, Bolivia
CP5 QSL Bureau, Box 1900, Cochabamba, Bolivia
CP6 QSL Bureau, Box 393, Santa Cruz, Bolivia
CR,CU Rede dos Emissores Portugueses
Rua Dom Pedro V, No. 7-40,
P-1200 Lisbon, Portugal
CX Radio Club of Uruguay, Box 37
Montevideo, Uruguay
C2 Nauru Amateur Radio Club,
QSL Bureau, Box 29, Nauru
C3 Unio de Radioaficionats Andorrans,
Box 150, La Vella, Andorra
C5 Radio Society of The Gambia, Box 2470
Serrekunda, The Gambia
C6 Bahamas Amateur Radio Society,
Box SS-6004, Nassau, Bahamas

DA,DR DARC Amateurfunk Zentrum
Box 1155, D-3507 Baunatal 1,
Federal Republic of Germany
DU,DZ,4F PARA QSL Bureau, Box 4083
Manila, Philippines
D4 LARCV, Box 145, Mindelo, Cape Verde

EA URE, Union de Radioaficionados Españoles,
Box 220, E-28080 Madrid, Spain
EI,EJ Irish Radio Transmitters Society
(IARU member), Box 462, Dublin 9, Ireland
EL,5L Liberian Radio Amateur Association,
Box 10-1477, 1000 Monrovia 10, Liberia
EP Anjoman-e Radio Amateuri-e Iran
Box 16765/1187, Tehran, Iran
ES QSL Bureau, Box 125, Tallinn 200090
Estonia, USSR
ET ET3TRC Telecoms ARC, Box 1047,
Addis Ababa, Ethiopia

F Cards for members only via REF QSL,
BP 2129, F-37021 Tours Cedex, France
or URC QSL Bureau, 11 Rue de Bordeaux,
F-94700 Maisons-Alfort, France
FG,FJ,FM,FP,FS,FT Cards for members only via REF QSL,
BP 2129, F-37021 Tours Cedex, France
FK Cards for members only may be sent
via ARANC, Box 3956, Noumea, New Caledonia
FO Radio Club of French Polynesia,
BP 5006, Pirae, Tahiti, French Polynesia
FY Cards for members only via REF QSL, BP 2129, F-37021
Tours Cedex, France
or Radio Club de Guyane, Box 508,
F-97300 Cayenne, French Guiana

G RSGB QSL Bureau, Box 1773, Potters Bar
Herts, EN6 3EP, U.K.
GD RSGB, c/o G.W Ripley GD3AHV,
"Corea Bungalow", Ronague Road
Ballasalla, Isle of Man, U.K.
GI RSGB, c/o A. Higgins GI3YMT, 1 Cairnshill Park,
Cairns Road,
Belfast BT6 4RG, Northern Ireland, U.K.
GJ RSGB, c/o H.J Chater GJ2LU, 106 Rouge
Bouillon, St Helier, Jersey, U.K.
GM RSGB, c/o Ted Bell GM4LKJ, 21 St Andrews
Crescent, Dumbarton GB2 3ER, Scotland, U.K.
GU RSGB, c/o S.T Henry GU4GNS, "The Hermitage
L'Ancresse, Vale, Guernsey, U.K.

GW RSGB, c/o K. Hudspeth GW0ARK
67 Bloomfield Road, Blackwood,
Gwent, Wales NP2 1LX, U.K.
HA,HG Magyar Radioamator Szovetseg, Box 214
H-1368 Budapest 5, Hungary
HB Cards for members only may be sent
via USKA QSL Bureau, Box 9,
CH-4900 Langenthal 1, Switzerland
HB0 Amateurfunk Verein Liechtenstein,
Box 27, FL-9486 Schaanwald, Liechtenstein

HC Guayaquil Radio Club (IARU member)
Box 5757, Guayaquil, Ecuador
HC1 Quito Radio Club, Box 289, Quito, Ecuador
HC5 Cuenca Radio Club, Box 307, Cuenca, Ecuador
HH Radio Club of Haiti, Box 501
Port-Au-Prince, Haiti
HI Radio Club Dominicano (IARU member), Box 1157, Santo
Domingo, Dominican Republic
or UDR, Box 951, Santo Domingo,
Dominican Republic
HI3 UDRA, Santiago, Box 449-3, Santiago
Dominican Republic
HK Liga Colombiana de Radioaficionados
(IARU member), Box 584, Bogota, Colombia
or Radio Club de Antioquia, Box 2500,
Medellin, Colombia
or AREA 2, Box 51327, Barranquilla, Colombia
or Radio Club del Atlantico, Box 51378,
Barranquilla, Colombia
HK1 Liga Colombiana de Radioaficionados
(IARU member), Box 6872, Cartagena, Colombia
or Radio Club "Cartagena de Indias"
Box 511, Cartagena, Colombia
or Radio Club Montelibano,
Box 2800, Montelibano, Colombia
HK7 Radio Club Santander, Box 222,
Bucaramanga, Colombia
HK0 LCRA, Box 584, Bogota, Colombia
HL,HM KARL, Central Box 162,
Seoul 100-00, South Korea
HL9 American Amateur Radio Club of Korea, Box 153, APO
San Francisco 96206, USA
HP Liga Panamena de Radioaficionados (IARU member),
Box 175, Panama 9A, Panama
or Radio Club de Panama,
Box 10745, Panama 4, Panama
HP2 Liga Panamena Radioaficionados,
Box 568, Colon, Panama
HP3 c/o Esteban McKay HP3ML,
Box 587, David, Chiriqui, Panama
or LPRA, Box 963, David, Chiriqui, Panama
HP5 c/o Dr. Francisco Narvaez HP5FI
Box 153, Chitre, Panama
HR Radio Club de Honduras (IARU member),
Box 0273, San Pedro Sula, Honduras
or Radio Club Tegucigalpa, Box 149-C,
Tegucigalpa, Honduras
HR2 Radio Club de Honduras, QSL Bureau,
Box 273, San Pedro Sula, Cortes, Honduras
HR5 c/o Noe Leopoldo Cruz HR5NC
Santa Rosa de Copan, Honduras
HS RAST QSL Bureau, GPO Box 2008,
Bangkok, 10501 Thailand
HV c/o Domenico Petty HV1CN,
Radio Station, Vatican City
H4 SIRS, Box 418, Honiara, Solomon Islands

I1Z QSL Bureau, Box 6, 1-28024 Gozzano,
(Novara), Italy

JA-JS JARL, 1-14-2 Sugamo, Toshima,
Tokyo, 170 Japan
JT Radio Club Station JT1KAA, Box 639,
Ulan Bator 13, Mongolia
JW,JX NRRL, Box 21, Refstad,
N-0513 Oslo 5, Norway
JY Royal Jordanian Radio Amateur
Society, Box 2353, Amman, Jordan
J2 ARAD QSL Bureau, Box 1076,
Djibouti, Republic of Djibouti
J3 QSL Bureau, Box 290, St. George's,
Grenada, Windward Islands
J6 St. Lucia ARC, Box 489, Castries,
St. Lucia, Windward Islands
J7 Dominica Amateur Radio Club,
Box 389, Roseau, Dominica, Windward Islands
J8 QSL Bureau, Box 142, Kingstown
St. Vincent, Windward Islands

LA-LJ Norsk Radio Relae Liga, Box 21,
Refstad, N-0513 Oslo 5, Norway
LU Radio Club Argentina, Box 97, Correo Central
1000 Buenos Aires, CF, Argentina
LX QSL Bureau, 25 rue A. Munchen, L-2172
Luxembourg, Luxembourg
LZ Central QSL Bureau, Box 830, Sofia, Bulgaria

QSL BUREAUS

OA	Radio Club of Peru, Box 538, Lima 100, Peru
OD	ARAL QSL Bureau, Box 8888, Beirut, Lebanon
OE	OE VSV QSL Bureau, Theresiengasse 11, A-1180 Vienna, Austria
OH	SRAL QSL Bureau, Box 30, SF-00381 Helsinki, Finland
OK,OL	Central Radio Club Box 69, 11327 Prague 1, Czechoslovakia
ON OR	UBA, Box 400, B-8400 Oostende 1, WV, Belgium FRA, Box 1630, B-1000 Brussels, BT, Belgium
OX	EDR QSL Central, c/o Boerge W. Nielsen OZ7BW, Solbjerghedevej 76, DK-8355 Ny-Solbjerg, Denmark
OY	OY-QSL Bureau, Box 1358, FR-110 Torshavn, Faroes (via Denmark)
OZ	EDR QSL Central, c/o Boerge W. Nielsen OZ7BW, Solbjerghedevej 76, DK-8355 Ny-Solbjerg, Denmark
PA-PI	Dutch QSL Bureau, Postbus 330, NL-6800 AH Arnhem, Netherlands
PJ	Verona QSL Bureau Box 3383, Willemstad, Curacao, Netherlands Antilles
PP-PY	LABRE/DR Box 07-0004, 70.359 Brasilia, DF, Brasil
PZ	VRAS QSL Manager, Box 566, Paramaribo, Suriname
P2	QSL Bureau, Box 141, Port Moresby, Papua New Guinea
P4	Aruba Amateur Radio Club QSL Bureau, Box 2273, San Nicolas, Aruba
R,U	Central Radio Club Box 88, Moscow USSR Moscow stations only: Moscow City Radio Club, Prospekt Vernadskogo 9/10, Moscow 117311, USSR
RB,UB RT,UT,UY	QSL Bureau, Box 56, Kiev 252001, Ukraine, USSR
RD,UD	QSL Bureau, Box 165, Baku-Center 370000 Azerbaijan, USSR
RF UF	QSL Bureau, UL Bochroma 12, Tbilisi 380044, Georgia, USSR
RG,UG	QSL Bureau, Prospekt Djonikidze 5, Yerevan 375000, Armenia, USSR
RH,UH	QSL Bureau, Box 224, Ashkhabad 744014, Turkmen, USSR
RM,UM	QSL Bureau, Box 392, Frunze 720055, Kirghiz, USSR
RP,UP	QSL Bureau, Box 1000, Vilnius 232001, Lithuania, USSR
RR,UR	QSL Bureau, Box 125, Tallinn 200090, Estonia, USSR
SA-SM	SSA, Ostmarksgatan 43, S-12342 Farsta, Sweden
SN-SQ	PZK QSL Bureau, skrytka pocztowa 320, 00-950 Warsaw 1, Poland
ST,6T,6U	Sudan Radio Club, Box 80, El Morada, Omdurman, Republic of the Sudan
SU	EARS, Ramsis Bldg., Floor 13 Flat 10, 6 Ramsis Square, Cairo 11111, Egypt
SV	RAAG (Radio Amateur Association of Greece), Box 3564, GR-10210 Athens, Greece
S2	Bangladesh Amateur Radio League, GPO Box 3512, Dacca, Bangladesh
S7	c/o R.C.Barnes S79D, Box 191, Victoria Mahe, Seychelles
S8	Transkei Amateur Radio League, Box 621, Umtata, Transkei
TA-TC	TRAC QSL Bureau, Box 109, Sirkeci 34432, Istanbul, Turkey or QSL Bureau, Box 811, Izmir 35212 Turkey
TF	IRA QSL Bureau, Box 1058, 121 Reykjavik, Iceland
TG	CRAG, Box 115, Guatemala City, Guatemala
TE-TI	Radio Club of Costa Rica, Box 2412, San Jose 1000, Costa Rica
TK,FC	Cards for members only via REF QSL, BP 2129, F-37021 Tours Cedex, France
TN	QSL Bureau, Box 2239 Brazzaville, Republic of the Congo
TR	Association Gabonaise des Radio-Amateurs, Box 1826, Libreville, Gabon
TU	Association des Radio Amateurs Ivoriens 01 BP 2946, Abidjan 01, Ivory Coast
TV-TX	Cards for members only via REF QSL, BP 2129, F-37021 Tours Cedex, France
T7	ARRSM QSL Bureau, Box 77, RSM-47031 Rep. of San Marino (Italy)
VE,VO,VY	CRRL Central QSL Bureau, Box 51, St. John, NB, Canada E2L 3X1 Outgoing only: CARF National QSL Bureau, Box 66, Islington, Ontario, Canada
VEØ,VE1,VY2	A. McLellan VE1ASJ, Box 51, St. John, NB, Canada E2L 3X1
VE2	A G Daemen VE2IJ 2960 Douglas Ave Montreal, Quebec, Canada H3R 2E3
VE3	The Ontario Trilliums ARC VE3TOT, Box 157, Downsview, Ontario, Canada M3M 3A3
VE4	L.R.Lazar VE4SL, 30 Bathgate Bay, Winnipeg, Manitoba, Canada R3T 0L2
VE5	Bj. Madsen VE5FX, 739 Washington Drive, Weyburn, Saskatchewan, Canada S4H 3C7
VE6	N.F.Waltho VE6VW, Box 1890, Morinville, Alberta, Canada T0G 1P0
VE7	Dennis Livesey VE7DK, 8309 112th Street, Delta, B.C., Canada V4C 4W7
VE8	Rolf Ziemann VE8RZ, 2 Taylor Road, Yellowknife, NWT, Canada X1A 2K9
VK1	QSL Bureau, GPO Box 600, Canberra, ACT 2601, Australia
VK2	QSL Bureau, Box 73, Teralba NSW 2284, Australia
VK3	Inwards QSL Bureau, GPO Box 757G, Melbourne, Victoria 3001, Australia
VK3	Outwards QSL Bureau, c/o Dus Clark VK3DES, 412 Brunswick Street, Fitzroy, Victoria 3065, Australia
VK4	QSL Officer, GPO Box 638, Brisbane, Queensland 4001, Australia
VK5	QSL Bureau, Box 10092, Gouger Street, Adelaide, SA 5000, Australia
VK6	QSL Bureau, c/o J. Rumble VK6RU GPO Box F319, Perth, WA 6001, Australia
VK7	QSL Bureau, GPO Box 371D, Hobart, Tasmania 7001, Australia
VK8	QSL Bureau, c/o H.G. Andersson VK8HA, Box 619, Humpty Doo, NT 0836, Australia
VK9,VKØ	QSL Bureau, c/o Neil Penfold VK6NE, 2 Moss Court, Kingsley, WA 6026, Australia
VO1,VO2	CRRL VO QSL Bureau, Box 6, St. John's, Newfoundland, Canada A1C 5H5
VP2M	Montserrat Amateur Radio Society, Box 448, Plymouth, Montserrat
VP2V	B.V.I. QSL Bureau, Box 653, Road Town, Tortola, British Virgin Islands, Leeward Islands
VP5	TACARS, Box 108, Providenciales, Turks and Caicos Islands, British West Indies
VP8	Falkland Islands Radio Club, Box 260, Mount Pleasant Airport, Falkland Islands Cards for British Antarctic Stations (BAT) may be sent c/o GPO Stanley, Falkland Islands
VP9	Radio Society of Bermuda, Box HM 275, Hamilton HM AX, Bermuda
VQ9	QSL Bureau, Diego Garcia ARC, Box 16, NSF, FPO San Francisco 96685, USA
VS6	Cards for members only via HARTS, Box 541, Hong Kong
VU	Amateur Radio Society of India, (IARU member) ARA, Box 4015, New Delhi 110017 India
VY1	CRRL QSL Bureau, W.L. Champagne VY1AU, Box 4597, Whitehorse, YT, Canada Y1A 2R6
V2	QSL Bureau, Box 1111, St. John's, Antigua, Leeward Islands
V7	Kwajalein Amateur Radio Club, Box 444, APO San Francisco 96555, USA
XE	FMRE (IARU member), Box 907, 06000 Mexico, DF, Mexico
XX	Cards for members only via HARTS, Box 541, Hong Kong
YB-YH	ORARI National QSL Bureau, Box 96, Jakarta, Indonesia 10002
YB1-YH1	QSL Bureau, Box 314, Bandung, Indonesia
YB2-YH2	Daerah Istemewa Yogyakarta, Box 27, Yogyakarta 55001 Indonesia Central Java, Northern Area QSL Bureau, Box 88, Semarang 50001, Indonesia Central Java, Southern Area QSL Bureau, Box 73, Solo, Indonesia
YB3-YH3	QSL Bureau, Box 59, Surabaia, Indonesia
YB4-YH4	c/o Johanes Titaley YB4GA, GG Sumatra B-5 Palembang, Indonesia
YB6-YH6	QSL Bureau, Box 666 Medan, Nort Sumatera, Indonesia
YBØ-YHØ	ORARI Daerah Jakarta, Box 2058, Jakarta, Indonesia
YI	Baghdad Radio Club, Box 7361, Baghdad, Iraq
YJ	Vanuatu Amateur Radio Society, Box 50, Port Vila, Vanuatu
YK	Technical Institute of Radio, Box 245, Damascus, Syria
YL	QSL Bureau, Box 164, Riga 226096, Latvia, USSR
YN,HT	QSL Bureau, Box 925, Managua, Nicaragua or Mike Murciano, Box 140902, Coral Gables, Florida 33114, USA or Alberto Matamoros, Box 1474, Managua, Nicaragua
YO	Federatia Romana de Radioamatorism, Box 22-50, R-71100 Bucharest, Romania
YS	Cards for members only via CRAS, Box 517, San Salvador, El Salvador
YU	SRJ, Box 48, 11001 Belgrade, Yugoslavia
YUI	SRS, Box 64, 11001 Belgrade, Yugoslavia
YU2	SRH, Dalmatinska 12, 41000 Zagreb, Yugoslavia
YU3	ZRS, Box 180, 61001 Ljubljana, Yugoslavia
YU4	SR, BIH, Box 61, 71001 Sarajevo, Yugoslavia
YU5	SRM, Box 14, 91001 Skopje, Yugoslavia
YU6	SRCG, Vaka Djurovica 20, Box 12, 81001 Titograd, Yugoslavia
YU7	SRV, Lenjinov trg 10, 21000 Novi Sad Yugoslavia
YU8	SRK, Box 141, 38001 Pristina, Yugoslavia
YV	Radio Club Venezolana (IARU member), Box 2285, Caracas 1010-A, DF, Venezuela or ARV QSL Bureau, Box 3636, Caracas 1010-A, DF, Venezuela
Y2-Y9	Radiosportverband der D.D.R., Box 30, DDR-1055 Berlin, German Democratic Republic
ZB	Gibraltar ARS, Box 292, Gibraltar
ZC	Joint Signal Board Headquarters, British Forces Cyprus, BFPO 53 London GPO, England, U.K.
ZD8	Ascension AR Relay League, Box 4127, Patrick AFB, Florida 32925, USA
ZF	Cayman Radio Society, Box 1029, Grand Cayman, British West Indies
ZK1	QSL Bureau, Radio Station Rarotonga, Rarotonga, Cook Islands, New Zealand
ZK2	QSL Bureau, Box 37, Niue, South Pacific
ZL	NZART, Box 857, Wanganui, New Zealand
ZP	Radio Club Paraguayo, Casila de Correo 512, Asuncion, Paraguay
ZR-ZS	Cards for members only via SARL, Box 807, Houghton 2041 TV, Rep. of South Africa
Z2	RSZ QSL Manager, Box 2377 Harare, Zimbabwe
3A	ARM, Box 2, MC-98001 Monaco Cedex or c/o Director Generale des Telecoms, 16 Boulevard de Suisse, Monaco
3B6-3B9	Mauritius ARS, Box 467, Port Louis, Mauritius
3DA	Radio Society of Swaziland, Box 64, Manzini, Swaziland
3D2	QSL Bureau, Box 184, Suva, Fiji Islands
4K	Central Radio Club Box 88, Moscow, USSR
4S	Radio Society of Sri Lanka, QSL Manager, Box 907, Colombo, Sri Lanka
4U1ITU	International ARC, Box 6, CH-1211 Geneva 20, Switzerland
4X,4Z	Israel ARC, Box 3500 Haifa 31034, Israel
5A	QSL Bureau, Box 372, Tripoli, Libya
5B	Cyprus Amateur Radio Society, Box 1267, Limassol, Cyprus
5N	Nigerian Amateur Radio Society, Box 2873, Lagos Nigeria
5R	QSL Bureau, Box 587 Tananarive, Madagascar
5W	Western Samoa Radio Club, QSL Bureau Secretary, Box 1069, Apia, Western Samoa
5Z	RSK QSL Bureau, Box 45681, Nairobi, Kenya
6W	ARAS, Box 971, Dakar, Senegal
6Y	QSL Manager, Jamaica Amateur Radio Association, Red Cross Building, 76 Arnold Rd., Kingston 5, Jamaica
7J	JARL, 1-14-2 Sugamo, Toshima, Tokyo, 170 Japan
7P	Lesotho ARS, Box 949, Maseru 100, Lesotho
7Q	c/o H.Y.Bvumbwe 7Q7AE, Box 24, Blantyre, Malawi
7X	ARA QSL Service, Box 2, Algiers, Algeria
8P	Radio Society of Barbados, Box 814E, Bridgetown, Barbados
8R	c/o Syd.C.H.D'Ornellas, 110 Barrack Street, Kingston, Georgetown, Guyana
9H	MARL (IARU member), Box 575, Valletta, Malta or AREC, Box 114, Valletta, Malta
9H4	c/o Eric Rogers 9H4G, Dar Ghall-Kwiet, Ghajn Melet St., Zebbug, Gozo, Malta
9I,9J	Radio Society of Zambia, Box 20332, Kitwe, Zambia
9K	Kuwait Amateur Radio Society, Box 5240, Code 15053 Safat, Kuwait
9L	Sierra Leone ARS, Box 10, Freetown, Sierra Leone
9M2, 9M6,9M8	via MARTS, Box 10777, 50724 Kuala Lumpur, Malaysia
9V	SARTS, GPO Box 2728, Singapore 9047
9X	RAR QSL Bureau, Box 663, Kigali, Rwanda
9Y	Trinidad & Tobago Amateur Radio Society, Box 1167, Port-of-Spain, Trinidad

The Yasme Foundation, Box 2025, Castro Valley, CA 94546, USA

INTERNATIONAL "Q" SIGNALS

ABBRE-VIATIONS	QUESTIONS	ANSWERS OR ADVICE
QRA	What is the name of your station?	The name of my station is ...
QRB	How far approximately are you from my station?	The approximate distance between our stations is ... nautical miles (or kilometers).
QRD	Where are you bound and where are you from?	I am bound for ... from ...
QRG	Will you tell me my exact frequency (or that of ...)?	Your exact frequency (or that of ...) is ... kHz (or MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is 1. Good. 2. Variable. 3. Bad.
QRK	What is the readability of my signals (or those of ...)?	The readability of your signals (or those of ...) is ... 1. Unreadable. 2. Readable now and then. 3. Readable, but with difficulty. 4. Readable. 5. Perfectly readable.
QRL	Are you busy?	I am busy (or I am busy with ...). Please do not interfere.
QRM	Are you being interfered with?	I am being interfered with.
QRN	Are you troubled by static?	I am troubled by static.
QRO	Shall I increase power?	Increase power.
QRP	Shall I decrease power?	Decrease power.
QRQ	Shall I send faster?	Send faster (... words per minute).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at ... words per minute.
QRS	Shall I send more slowly?	Send more slowly (... words per minute).
QRT	Shall I stop sending?	Stop sending.
QRU	Have you anything for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRW	Shall I inform ... that you are calling him on ... kHz (or MHz)?	Please inform ... that I am calling him on ... kHz (or MHz).
QRX	When will you call me again?	I will call you again at ... hours [on ... kHz (or MHz)].
QRY	What is my turn?	Your turn is Number ... (relates to communication.).
QRZ	Who is calling me?	You are being called by ... [on ... kHz (or MHz)].
QSA	What is the strength of my signals (or those of ...)?	The strength of your signals (or those of ...) is 1. Scarcely perceptible. 2. Weak. 3. Fairly good. 4. Good. 5. Very good.
QSB	Are my signals fading?	Your signals are fading.
QSD	Is my keying defective?	Your keying is defective.
QSG	Shall I send ... telegrams at a time?	Send ... telegrams at a time.
QSJ	What is the charge to be collected per word to ... including your internal telegraph charge?	The charge to be collected per word to ... including my internal telegraph charge is ... francs.
QSK	Can you hear me between your signals?	I can hear you between my signals.
QSL	Can you acknowledge receipt?	I am acknowledging receipt.
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or telegram(s) number(s) ...].
QSN	Did you hear me [or ... (call sign)] on ... kHz (or MHz)?	I did hear you [or ... (call sign)] on ... kHz (or MHz).
QSO	Can you communicate with ... direct or by relay?	I can communicate with ... direct (or by relay through ...).
QSP	Will you relay to ... free of charge?	I will relay to ... free of charge.
QSQ	Have you a doctor on board [or is ... (name of person) on board]?	I have a doctor on board [or ... (name of person) is on board].
QSU	Shall I send or reply on this frequency [or on ... kHz (or MHz)] (with emissions of class ...)?	Send or reply on this frequency [or on ... kHz (or MHz)] (with emissions of class ...).
QSV	Shall I send a series of V's on this frequency [or ... kHz (or MHz)]?	Send a series of V's on this frequency [or ... kHz (or MHz)].
QSW	Will you send on this frequency [or on ... kHz (or MHz)] (with emissions of class)?	I am going to send on this frequency [or on ... kHz (or MHz)] (with emissions of class ...).
QSX	Will you listen to ... [call sign(s)] on ... kHz (or MHz)?	I am listening to [call sign(s)] on ... kHz (or MHz).
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (or on ... kHz (or MHz).
QSZ	Shall I send each word or group or more than once?	Send each word or group twice (or ... times).
QTA	Shall I cancel telegram number ... as if it had not been sent?	Cancel telegram number ... as if it had not been sent.
QTB	Do you agree with my counting of words?	I do not agree with your counting of words. I will repeat the first letter or digit of each word or group.
QTC	How many telegrams have you to send?	I have ... telegrams for you (or for ...).
QTE	What is my TRUE bearing from you? or What is my TRUE bearing from (call sign)? or What is the TRUE bearing of (call sign) from ... (call sign)?	Your TRUE bearing from me is ... degrees (at ... hours). or Your TRUE bearing from ... (call sign) was ... degrees (at ... hours). or The TRUE bearing of ... (call sign) from (call sign) was ... degrees (at ... hours).
QTG	Will you send two dashes of ten seconds each followed by your call sign (repeated ... times) [on ... kHz (or MHz)]? or Will you request ... to send two dashes of ten seconds followed by his call sign (repeated ... times) on ... kHz (or MHz)?	I am going to send two dashes of ten seconds each followed by my call sign (repeated ... times) [on ... kHz (or MHz)]. or I have requested ... to send two dashes of ten seconds followed by his call sign (repeated ... times) on ... kHz (or MHz).
QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is ... latitude ... longitude (or according to any other indication).
QTI	What is your TRUE track?	My TRUE track is ... degrees.
QTJ	What is your speed?	My speed is ... knots (or kilometers per hour).
QTL	What is your TRUE heading?	My TRUE heading is ... degrees.
QTN	At what time did you depart from ... (place)?	I departed from ... (place) at ... hours.
QTO	Have you left dock (or port)? or Are you airborne?	I have left dock (or port). or I am airborne.
QTP	Are you going to enter dock (or port)? or Are you going to alight (or land)?	I am going to enter dock (or port). or I am going to alight (or land).
QTQ	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code of Signals.
QTR	What is the correct time?	The correct time is ... hours.
QTS	Will you send your call sign for minute(s) now (or at ... hours) [on ... kHz (or MHz)] so that your frequency may be measured?	I will send my call sign for minute(s) now (or at ... hours) [on ... kHz (or MHz)] so that my frequency may be measured.
QTU	What are the hours during which your station is open?	My station is open from ... to ... hours.
QTV	Shall I stand guard for you on the frequency of ... kHz (or MHz) (from ... to ... hours)?	Stand guard for me on the frequency of ... kHz (or MHz) (from ... to ... hours).
QTX	Will you keep your station open for further communication with me until further notice (or until ... hours)?	I will keep my station open for further communication with you until further notice (or until ... hours).
QUA	Have you news of ... (call sign)?	Here is news of ... (call sign).
QUB	Can you give me, in the following order, information concerning visibility, height of clouds, direction and velocity of ground wind at ... (place of observation)?	Here is the information requested ...
QUC	What is the number (or other indication) of the last message you received from me [or from ... (call sign)]?	The number (or other indication) of the last message I received from you [or from ... (call sign)] is ...
QUD	Have you received the urgency signal sent by ... (call sign of mobile station)?	I have received the urgency signal sent by ... (call sign of mobile station) at ... hours.
QUF	Have you received the distress signal sent by ... (call sign of mobile station)?	I have received the distress signal sent by ... (call sign of mobile station) at ... hours.
QUG	Will you be forced to alight (or land)?	I am forced to alight (or land) immediately. or I shall be forced to alight (or land) at ... (position or place).
QUH	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is ... (units).

THIRD - PARTY TRAFFIC

The U.S. Federal Communications Commission defines third-party traffic [Part 97.3 (a)(38)] as: "A message from the control operator (first party) of an amateur station to another amateur station control operator (second party) on behalf of another person (third party)." U.S. amateurs are only permitted to handle such traffic with countries having third-party agreements with the United States.

The following is a current list of these countries:

V2	Antigua & Barbuda
LU	Argentina
VK	Australia
V3	Belize
CP	Bolivia
PP-PY	Brazil
VE	Canada
CE	Chile
HK	Colombia
D6	Comoros
TI	Costa Rica
CM,CO	Cuba
J7	Dominica
HI	Dominican Republic
HC	Ecuador
YS	El Salvador
V6	Federated States of Micronesia
9G	Ghana
J3	Grenada
TG	Guatemala
8R	Guyana
HH	Haiti
HR	Honduras
4X,4Z	Israel
4U1ITU	ITU, Geneva
4U1VIC	ITU, Vienna
6Y	Jamaica
JY	Jordan
EL	Liberia
XE	Mexico
YN	Nicaragua
HP	Panama
ZP	Paraguay
OA	Peru
V4	St. Kitts-Nevis
J6	St. Lucia
J8	St. Vincent
9L	Sierra Leone
3D6	Swaziland
C5	The Gambia
9Y	Trinidad & Tobago
CX	Uruguay
YV	Venezuela

RECIPROCAL OPERATING AGREEMENTS

The United States has negotiated reciprocal operating agreements with many other countries. Amateurs may operate within the territory of these countries according to the terms of the agreement after first obtaining a permit from the host country. The sole exception is Canada: amateurs with valid U.S. or Canadian licenses may operate within the other country's territory without obtaining a permit. They must, of course, abide by all the terms of the reciprocal operating agreement.

The following is a current list of countries having reciprocal operating agreements with the United States:

V2	Antigua & Barbuda
LU	Argentina
VK	Australia
OE	Austria
C6	Bahamas
8P	Barbados
ON	Belgium
V3	Belize
CP	Bolivia
A2	Botswana
PY	Brazil
VE	Canada
CE	Chile
HK	Colombia
TI	Costa Rica
5B	Cyprus
OZ	Denmark
J7	Dominica
HI	Dominican Republic
HC	Ecuador
YS	El Salvador
3D2	Fiji
OH	Finland
F	France & Territories
DA-DR	Fed. Rep. of Germany
SV	Greece
J3	Grenada
TG	Guatemala
8R	Guyana
HH	Haiti
HR	Honduras
VS6	Hong Kong
TF	Iceland
VU	India
YB-YH	Indonesia
EI	Ireland
4X,4Z	Israel
I	Italy
6Y	Jamaica
JA-JS	Japan
JY	Jordan
T3	Kiribati
9K	Kuwait
EL	Liberia
LX	Luxembourg
3A	Monaco
PA-PI	Netherlands
PJ	Netherlands Antilles
ZL	New Zealand
YN	Nicaragua
LA	Norway
HP	Panama
ZP	Paraguay
OA	Peru
DU	Philippines
CT	Portugal
J6	St. Lucia
9L	Sierra Leone
H4	Solomon Is.
ZR,ZS	South Africa
EA-EH	Spain
PZ	Surinam
SJ-SM	Sweden
HB	Switzerland
9Y	Trinidad & Tobago
T2	Tuvalu
G	United Kingdom
CX	Uruguay
YV	Venezuela
YU	Yugoslavia

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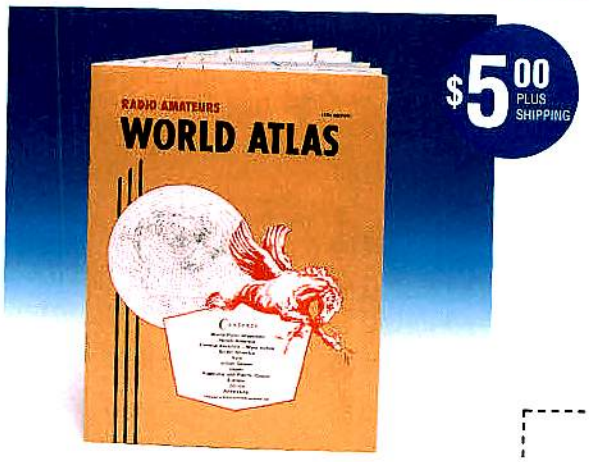

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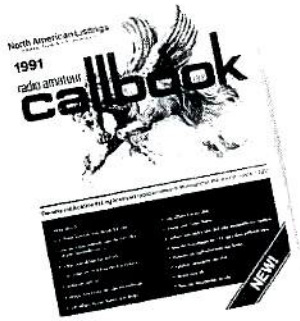

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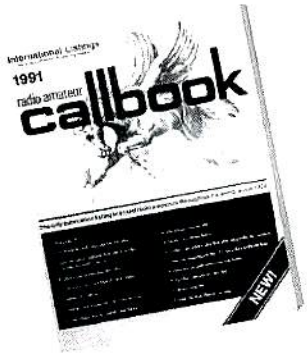

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